

THE CULTIVATOR:

A CONSOLIDATION OF BUEL'S CULTIVATOR AND THE GENESEE FARMER.

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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

TO THE SUBSCRIBERS AND READERS OF THE
CULTIVATOR.

THE present number closes the volume of the Cultivator for 1843, and we may venture to express the hope that the time we have spent in the company of our friends and readers, has not been altogether without its pleasures and its profits, to all parties. If we have not done all that we could have wished, we have the satisfaction of knowing we have done what we could to interest and instruct; and with our increasing means, and the favors of our accumulating list of intelligent correspondents, we trust hereafter to make "The Cultivator" still better correspond with the importance of the cause it advocates. For the past we are truly grateful; for the future we have nothing to fear.

By a glance at our prospectus for 1844, which may be found in the present number, our readers will perceive that we have made some new arrangements, which we have reason to believe will be highly acceptable to our friends and patrons; particularly the change in the form of the Cultivator, and the establishment of a new and cheaper paper to meet the wishes of those who prefer a less costly, but still comprehensive and practical journal of agriculture. The prices at which these papers will be published, it will be seen, are such as is believed will leave no ground for complaint on that score; and as it will require an extensive circulation to support them at such low rates, we hope our present subscribers will come forward at once, not only with their own names, but such of their neighbors as may need a good paper for themselves or families. Let those who now patronize us, or intend to do so, hand their dollar or their fifty cents, as the case may be, to the postmaster or the agent, without delay, so as to receive the Cultivator and Museum in season for regular reading and preservation. Will our subscribers and friends attend to this matter?

SPECIAL NOTICE.

ACCORDING to the practice pursued from the commencement of "THE CULTIVATOR," all subscriptions terminate with the volume. No papers will therefore be hereafter sent to our present subscribers until their subscriptions are renewed by payment for the next vol. Though this course has caused some complaint, it is the only safe one for us to pursue, as our friends will be aware if they will but reflect for a moment upon the impossibility of collecting the small sum asked for our paper, from our subscribers who are scattered over every state in the Union. While trusting the paper would be ruinous to us, it can be no serious inconvenience to our friends to hand their dollar to their Postmaster, to be forwarded to us. By doing this immediately on the receipt of this no. they will secure the early and regular receipt of the next volume.

AGENTS IN CITIES.

THAT our subscribers in the principal cities may know where they can renew their subscriptions, we give a list of City Agents on our last page. They should renew their subscriptions previous to the 20th inst. to insure an early reception of the first no. of the new volume.

NEW SERIES OF THE CULTIVATOR.

THE publisher and proprietor of *The Cultivator* informs the friends and patrons of that journal, that at the beginning of the next volume in January, 1844, a new and enlarged series will commence, and the form of the publication at the same time will be changed from its present Quarto size of 16 pages, to a large Octavo of 32 pages each number. This change, which has been in contemplation for the past two or three years, has been determined upon in compliance with the wishes of many of our subscribers, who have been anxious to have the work in what they consider a more convenient form, both for reading and for preservation. Of the character of the Cultivator it can scarcely be necessary to speak, at this time and place. From its commencement it has taken the highest place in the list of journals devoted to the cause of the farmer; and in its series of volumes, forms perhaps the best agricultural library of the day. Its numerous and increasing list of contributors, unrivaled in extent and ability—the ample means in the power of the editors to give the most early and complete record of every thing that can interest the farmer, or aid in forming a correct opinion of the condition and progress of agriculture, and its extensive circulation, exceeding that of any similar journal in the world, has caused it to be looked upon as the principal exponent of agriculture in the country. The change of form will lead to no change of character. In the amount of agricultural reading—in its numerous and effective engravings and illustrations, and in its unwearied efforts to inform the mind and elevate the condition of the farmer, it will still be the same.

At the same time, the proprietor of the Cultivator will issue a new paper, to be called

THE FARMER'S MUSEUM.

It will be printed in the same condensed and beautiful manner as the Cultivator, on an octavo page of the same size, but will contain only 16 octavo pages, or one-half the quantity of the former.

Public opinion seems to have decided that a 50 cent paper is necessary; and from all parts of the country the proprietor of the Cultivator has been urged to undertake the publication of such a journal. The favor with which the Monthly Genesee Farmer was viewed, the great good it was accomplishing, and the extensive circulation it had attained, while conducted by him, is considered a proof that a similar cheap publication, made up from the ample pages of the Cultivator, and practically adapted to the wants of the thousands whose moderate means prevent the receipt of more expensive journals, will be hailed as a desideratum by the farming public.

By an examination of the terms annexed, it will be seen they are such as is believed will make it an inducement for individuals to act as agents in procuring subscribers to these works. There is scarcely a neighborhood, or town, in which an active person, interested in the cause of agriculture, may not in a short time obtain from 20 to 100 subscribers; and we would suggest that there are hundreds of young men, who might spend in this way a few days or weeks, with greater profit to themselves, and perhaps more advantage to others, than in almost any other. Our numerous friends and subscribers in all parts of the Union and the Canadas, are respectfully requested to aid the cause of agriculture, by bringing the contemplated change in the old, and the establishment of our new publication, to the notice of their neighbors. Postmasters, and others, who have heretofore so kindly interested themselves in our behalf, will add greatly to their present claims on our gratitude, by continuing to receive and forward the names of those who may wish to become subscribers. The many Editors with whom we exchange, will greatly oblige us by calling the attention of their readers to our new arrangements. As no means, or expense, will be neglected to sustain the present high reputation of the CULTIVATOR, and render the MUSEUM worthy a place in the home of every farmer, and as the terms adopted are such that an extensive circulation only can afford remuneration for either, it is hoped an early and cheerful response will be made to this appeal, and a list of subscribers forwarded, such as it is believed these journals will deserve.

TERMS OF THE CULTIVATOR.

Single copy \$1.00—Seven copies for \$5.00—Fifteen copies for \$10.00.

TERMS OF THE FARMER'S MUSEUM.

The Museum will be printed on a sheet just one-half the size of "The Cultivator," 16 pages, large octavo. Single copies 50 cents—Fourteen copies for \$5.00—Thirty copies for \$10.00.

All subscriptions must commence with the vol. at the commencement of each year; and all orders must be

accompanied with the money, and come free of postage; as the exceeding low rates at which the papers are published, forbid the risk and loss heretofore sustained by crediting the paper to Agents.

N. Y. STATE AG. SOCIETY.

THE annual meeting of the New-York State Ag. Society will be held at the Society's Room in the old State Hall, Albany, on the 3d Wednesday (the 17th,) of January, 1844, at 10 o'clock, A. M.

Persons intending to compete for the Society's Premiums on Field Crops, Essays, &c. are reminded that their statements and essays must be sent to the Recording Secretary, Albany, before the first of January.

Presidents of County Ag. Societies are also requested to transmit the Reports required by the statute, to the Recording Secretary, previous to the annual meeting.

LUTHER TUCKER, Rec. Sec'y.

Albany, Dec. 1, 1843.

THE NEXT STATE CATTLE SHOW.

CONSIDERABLE interest is already beginning to be felt in the selection of the place for holding the next Exhibition of the State Ag. Society. Last year but two places sought for it—Rochester and Utica. Utica having failed this year, will probably expect it next; but it will, we learn, have Auburn and Poughkeepsie to contend with. At the late meeting of the Cayuga Ag. Society, a resolution was adopted inviting the State Society to hold its next exhibition at Auburn; and a meeting was held at Poughkeepsie, on the 13th of last month, at which the following, among other resolutions, was adopted:

Resolved, That the Fairs of the State Agricultural Society are justly attracting the notice of all our citizens—that being for the State they should be held in different sections of it—that as one has been held at Syracuse, another at Albany, and a third at Rochester, we respectfully request the Executive Committee of the State Society to hold their next Annual Fair at the village of Poughkeepsie, in the county of Dutchess—that we pledge ourselves to make every necessary arrangement for the accommodation of the stock and articles which may be exhibited, and for the entertainment of the persons who may attend it.

A committee, consisting of thirty of the most respectable citizens of Dutchess county, was appointed to present the proceedings of this meeting to the Ex. Committee of the State Society, and to urge upon them a compliance with the wishes of the meeting.

THE COTTON CROP.

EXTRACT of a letter to the Editors of the Cultivator, from Dr. N. B. CLOUD, dated Magnolia, Macon county, Ala., Nov. 5, 1843:

"With regard to the extent of the present crop of cotton, it is a difficult matter to speak in any thing like satisfactory terms. There is, however, no doubt, as reports from all quarters most satisfactorily affirm, but that the crop will fall far short of the last. I have no idea, from the information we have, that this crop can reach 1,800,000 bags. We have had a fine fall for gathering cotton, and I presume the staple of the present crop will compare finely with any previous one. Our planters are beginning to realize the advantages of extra care, pains taking and attention bestowed in gathering and preparing their cotton for market. The day is rapidly hastening and is close at hand, when our planters shall correctly understand their best interest, that no cotton will be offered in market but that of the first quality. Our inferior cottons should be manufactured by ourselves into cotton bagging and rope, &c., for sending off the better qualities. I have no doubt but it would answer much better than any fabric heretofore used, beside opening a new and large channel of consumption. Our water power is abundantly plenty, and the intelligence of our people in every way adequate to the undertaking. It must and will certainly take place, and it will be a glorious era for the south. Nothing is more clearly evident than the advantages of such enterprise; not only to the planter must it prove advantageous, but to mechanics, to commerce and the manufacturers."

Extract of a letter from Barbour county, Alabama:—"Our crops through this region of country will fall far short of last year, particularly our cotton crop, which is the great crop of this section of country. Having much less of that valuable staple to take off and prepare for market, we will be enabled to prepare it much nicer than if the crop was very abundant."

For Monthly Notices, see page 188.

AGRICULTURAL REVIEW OF 1843.

In looking back on the state of the country, the crops, and the condition of agriculture for the past year, we find much cause for pleasurable gratulation, and for gratitude. The season has been a favorable one on the whole; the crops have been abundant, and the condition of the farming and planting interests, and as a matter of course the country, has been constantly improving. In a country like ours, embracing such a variety of climate, and so many objects of culture, it would be little short of a miracle, if in every part, and with every variety of product, there should be no failures; if every where the proper condition of temperature, of heat, moisture, and duration, should be precisely what is required. Such a state of things it is unreasonable to expect; but local failures scarcely effect the general result.

The temperature of that part of the year which has the most influence on the labors of the farm, has been favorable to the maturity of the crops. September, however, was warmer by several degrees than it has been for some years past. There has been numerous and sudden fluctuations of temperature the whole season, and these have not been without their influence on the crops as well as the general health. Thus on the first of June, more or less snow fell over most of the northern states, and about the middle of Sept. frosts, sufficiently severe to injure corn, occurred in many places. From the 25th of Sept. to the present time, the weather has been very unfavorable, and its effect on the securing and preservation of crops, has been very injurious and will be widely felt. Snow, to the depth of from 10 to 20 inches, fell over most of the north, previous to the middle of November; and the frosts at the south in October, were destructive to late cotton and tobacco.

The *Wheat Crop* of the United States for the year 1843, is greater than has ever before been produced. Immediately before the harvest, prospects were discouraging. In some places the Hessian fly had appeared, in others the grain worm, and nearly every where the grain was standing thin upon the ground, having in some places been smothered with snow, and in others frozen out in the spring. To the surprise of all, the insects did comparatively little damage, the heads of the grain came up large and long, and the berry was of the finest quality. The yield per sheaf, was unusually large, and more great crops of wheat have been grown the present year, than in any previous one. About two millions of barrels of flour passed down the Erie canal, and the quantities received at Baltimore and New Orleans, have been unusually heavy. A great quantity of land has been seeded this fall with wheat, but those who were late in their labor, were obliged to put in their seed when the soil was not in the best condition. Wheat should always be sown before the 15th of September; later than that, the probability of getting the seed in well, lessens daily. The practice of sowing on clover or grass leys without fallowing, is gaining ground, and many of the best crops taken off the past year, were grown in that way. With clean grounds and a proper rotation, this is doubtless the best method of raising wheat, and this condition of farming is what all should aim at.

Indian Corn is good; not better than in some previous years, but a fair crop. The cold of early summer retarded its growth, and in some places the extreme dry weather of the month of August and part of September, had a bad effect. Still the old adage, that so far as corn is concerned, "dry weather sears folks to death, and wet weather starves them to death," has as usual, in general held good. Where the corn felt its influence most, it was not so much in hindering its growth, as in preventing the formation of grain, or retarding the advance of the ears to maturity. In some instances, on very dry warm soils, we knew some fields that seemed to remain stationary for nearly a month, the plants simply obtaining moisture enough to prevent their dying, but not enough to form or aid the maturing of the ears. In such cases the corn was late, and in many, perhaps most instances, suffered from the frosts of September. The great snows of the forepart of November, found much of the corn still in the field, and it has required no little skill and exertion to save it in good condition.

Rye, Oats and Barley, have been good crops, and large quantities, oats in particular, have been raised. Barley is not as extensively cultivated as formerly; as in the great barley producing districts of central New-York, it is probably not more than half as much was sown in 1843, as in some previous years. Two causes may be assigned for this falling off. There was not as much demand for barley for brewing as formerly, the temperance reformation having reached the consumption of beer, and farmers found that the constant cultivation of spring crops, was getting their best lands so foul as seriously to injure their productiveness. As the price of barley rendered its cultivation as an article of profit, of little consequence, much barley land has been seeded down, put into hoed crops, or fallowed for wheat. The barley grown was of good quality, and very productive.

The main root crop of the country is *Potatoes*; indeed, we question whether there is any one that in the middle or northern states contributes more to the food or the comfort of the inhabitants than the potatoe. We are sorry to say that this crop has suffered much from several causes, and that while in some districts there is a general failure, in no one, as we can learn, has it reached an average crop. The potatoes are small and few in number, were late in maturing, and many were gathered prematurely. At the time of writing, (Nov. 20th,) a considerable part of the potatoe crop is still in the ground,

and the prospects for digging are not of the best kind. Still a few fine days would clear the potatoe fields, and doubtless every exertion will be made to secure a crop on which so much is depending. In those places where the drouth was most severe, the potatoes have suffered more than the corn, and their maturing more sensibly retarded. In many cases, indeed, the tops dried in the fields long before the roots had ripened, and thus all possibility of improvement from the late rains was cut off. We saw many instances in which the first set of tubers had sprouted for the second crop, owing to the early stage in which they had ripened. It is doubtless to be attributed to this premature ripening, that decay or rot, is so extensive among the roots gathered, so much so as in many cases to threaten a total loss. In England and Scotland, the potatoe crop has for several years past been liable to great injury, and in some cases a total failure from a disease called the *curl*, in which the tops died immediately after the formation of the tubers commenced, leaving them wholly unfit for use. We have seen some cases of the same difficulty here, and it is not impossible that it may become as destructive here as abroad. No satisfactory solution of the cause of the evil has been given, though it has received much attention from the ablest men of these countries; and it would be well for the American farmer to be as far as possible on his guard, and as preventives never plant potatoes successively on the same soil, or use any but sound mature seed. It is probable raising new varieties from seed, will eventually be found the best method of preventing diseases in this important vegetable; although the opinion that varieties degenerate and run out, has as yet received no positive confirmation.

The other crops, such as hay, roots in general, garden vegetables, &c. have been very good, and the early appearance of winter, indicates that all will be required for the flocks and herds before the next spring. In this respect our friends at the south and west, have greatly the advantage of us northerners, as it demands no small part of our summer labor to provide food for our animals during our winters. It is evident great improvements in the wintering of stock might be effected, by the adoption of the practice of stabling, or providing good warm shelters for animals, and by cutting or grinding the food furnished them. Grinding the cob with the corn, adds fully one-third to its value for feeding, and the converting straw or cornstalks into chaff before using, is attended with equal advantages.

That there has been decided progress made the past year in the agriculture of the country; that the prospects of the planter and farmer are steadily but constantly improving; that the importance of agriculture to the country is becoming more apparent, and more forcibly impressing the minds of our statesmen and economists; and that nothing but the diffusion of intelligence, and a proper spirit of independence among the owners and tillers of the soil, is wanting to place this great interest on its true foundation, is apparent to all who are observant of the signs of the times. The numerous cattle shows and fairs that have been held the past season in all parts of the Union, and the increased interest and spirit with which they have in general been conducted, affords a cheering proof not only of the advantages of such associations, but of the better feeling which the assurance of improvement and success always imparts. We conclude this brief retrospect, with the remark that in the past the agriculturist has abundant cause for gratitude, and in the future he may confidently anticipate a still further development of that improvement in his business and its profits, of which he already beholds the dawn.

AGRICULTURAL ADDRESSES, REPORTS, &c.

Few things have given us more satisfaction than the great improvement to be seen in the mass of Addresses, Reports, &c. delivered or made before the Agricultural Societies and associations of our country the present year. They are decidedly more practical and pointed in their character, and the writers seem to have been fully impressed with the truth that agriculture, and its kindred pursuits, was to be the theme of their discourses, and not any topic, however relevant, that would admit of a display of learning or eloquence. Men of the highest intellect and the most commanding positions, have lent their aid to give interest to these festivals, and it is no disparagement to them to say that their efforts have at least been equaled by the farmer, who, called to address his friends, prepared his response at such intervals as he could spare from the toil of the field. We like this mingling of men engaged in different pursuits; it enlarges and liberalizes the mind, and lays the foundation of friendly intercourse and mutual respect, broad and deep in the best elements of our natures.

We have before us the well written and practical address of Mr. MATHER, before the Middletown (Conn.) Ag. Society, Oct. 1843. The following extract will show the manner in which he manages the important subject of manures:

"Of the methods which I have tried, I consider the following as the most economical. The barnyard should be excavated in the form of a dish in the center, leaving a margin on all sides, sufficiently broad for the comfort of the stock, and convenience in feeding. In the fall, the yard may be covered to the depth of ten inches or a foot, with materials from the swamp, the bottoms of ditches, or with turf from the roadside. To this should be added all the weeds and refuse of the farm. And I am strongly of the opinion that here is the most profitable place to spread all the lime, ashes, plaster, and salt,

which we design to apply to the land in the coming spring. The liquid from the stable, should be led into the middle of the yard, and the manure from the stable, as fast as it is made, be equally spread over the whole, that the quality may be uniform. No water should be permitted to come into the yard, except what falls directly upon it. * * * By the treading of the cattle during the winter and spring, the whole will be incorporated into a uniform mass, and in a suitable condition to apply to the land. By pursuing substantially, this course, I have more than doubled the quantity and value of the manure on my farm. * * * A Dutch farmer, it is said, built his barn directly over a small creek, leading into the Hudson, that the stream might carry away all the filth. We are not quite so improvident as the Dutchman, but there are some farmers, who, in order to secure a dry yard for their stock, are very particular to leave a drain to carry off the wash. They might as well cut a hole in their pockets."

The Address of the Rev. Mr. HENKLE of Lexington, Kentucky, delivered in the chapel of Transylvania University, July, 1843, and having for its subject the "Moral Dignity and General Claims of Agricultural Science," is a production of high order. We have room for only a single extract, showing the beautiful manner in which a knowledge of agricultural science unfolds many of the mysterious changes that occur in the organization of plants, as performed by the laws of Nature:

"A seed, so minute as to be scarcely visible to the naked eye, will be found a thing most perfect, and wonderfully adapted to the ends of its creation. Within is deposited the perfect germ of a future plant, surrounded with *gluten* and *starch*, substances which give value to grains as food—and the whole enclosed in a protecting shell of woody fibre. When the seed is cast into the earth, under favorable circumstances, the heat and moisture present in the soil, produce fermentation, and fermentation causes the seed to germinate or sprout. But as the embryo plant has neither roots by which to collect nourishment from the soil, nor leaves by which to extract it from the atmosphere, instant death must happen to it, had not bounteous nature supplied it with provision through this transmutation to new life, in the *gluten* and *starch* which surround it. Yet the tender organs of the infant germ are incapable of appropriating this food in an undissolved state, and have not the power, aided by the moisture to which it has access, to dissolve it; but from the *gluten* is formed, at the base of the germ, a substance (called *diastase*), which effectually dissolves the starch, and prepares it as food to nourish the germ until its functions acquire such maturity as to draw support from its destined sources, the soil and the atmosphere. As the sap thus prepared, ascends in the young shoot, the dissolved starch is changed into sugar; and when it reaches the light, this sugar is converted into woody fibre, and its color is changed to green. But in the ripening of the grain, the sugar of the sap is again changed to starch, which, if not used for food in that state, is destined to be converted back again into sugar, to nourish the young germ of a future generation."

The Henrico Agricultural Society at Richmond, (Va.) is one of the most active and flourishing associations in our country; a result to be expected from the numerous able and public spirited men combined in its direction. The Address of Mr. C. T. BOTS, Editor of the Southern Planter, at their October anniversary, is an able and eloquent exposition of the rights and the duties of the farmer; but here, as in the preceding cases, we are limited to a single extract, and in it is conveyed a most weighty and important truth:

"That agriculture is the mother of all arts—that it was the primeval occupation of man—that it is the foundation and source of all industry, has been repeated by every writer and speaker on the subject for the last 500 years, and these declarations are not less true than trite. But there is one view of the subject that I have never seen taken, at least never pressed with sufficient force upon the public consideration; I mean the importance, not to say necessity of agriculture to the support of our republican institutions. These in their nature depend upon the purity and virtue of the people, and they have most to dread from that foul corruption, which seems to be engendered in man from contact with his fellow creatures. I know it has been claimed for cities, and not without reason, that history proves them to have been the ardent friends of liberty, and ever the pioneers in the great struggles of freedom which man has been forced to wage with his oppressors. They have been the first to resist oppression, not from a greater love of liberty, but because their local position gave them greater facilities of union; but if they are banded together for good, they are frequently united for evil, and it is in the corruptions engendered in a great city, that the demagogue loves to riot. With an almost boundless territory, and the most fertile soil in the world, we must remain for many centuries an agricultural people. Villages, such as Richmond, may, may must spring up, and one or two, as New-York, may in time grow to be the cities of which I speak. But it will be long, very long, ere the heaven of purity and honesty derived from agricultural occupations, will not more than counterbalance all the vice and corruption that seem inseparable from a congregation of great masses of mankind."

ONTARIO COUNTY FAIR.—The amount of the show at this Fair on the 18th, was 95 cattle, 58 sheep, 65 swine, 6 studs, 4 pairs matched horses, 4 single, before buggies, 20 mares and colts. The weather was most unpropitious throughout.

NEW PUBLICATIONS.

It is not often that we step aside, in this department of the Cultivator, to notice works not more or less devoted to agriculture; but in the present instance, we feel justified in calling the attention of our readers to a work of the first importance to the great cause of general education.

We have before us the 9th edition of the "Introduction to the Science of Government, and Compend of the Constitutional and Civil Jurisprudence of the United States, with a brief Treatise on Political Economy; by ANDREW C. YOUNG," adapted to the use of schools and families, and printed and published by William Alling, bookseller, Rochester.

This neat volume of 350 pages we have examined attentively, and can give it our most hearty approval. There are few subjects of more importance than the one of which it treats. In a country where every individual has a voice in the government, it is surely the duty of all to understand the obligations and the responsibilities resting on him. The "Science of Government" has been prepared with express reference to this object, and is most admirably adapted to give the knowledge so much required. The style is clear, plain and familiar, and the subjects are treated in such a manner as to be easily comprehended by all. All the most important and leading features of our national and state constitutions; the laws, powers and duties of the governing and the governed, are clearly presented; and to the young man offers a mass of information to him invaluable. The want of such a book, as a text and reading book in our common schools, has long been known, and the volume before us will, we are confident, be considered as a most timely supply of a want generally felt by all acquainted with our schools. It has already, we are gratified to learn, been extensively introduced into our higher schools and academies, and not a season should pass without at least one class in every school in our broad land being provided with the "Science of Government" as a school book. So serious has been the defect in our school books in this particular, that we cannot too earnestly recommend to parents and teachers the adoption of a work that promises so much for the young of our land.

DANA'S PRIZE ESSAY ON MANURES.

In our last we noticed the receipt of a copy of this Essay, and have since had an opportunity of examining it carefully. We can only say it is a worthy companion of the Muck Manual reviewed by us last year, and deserving the distinction conferred upon it by the State Ag. Soc. of Massachusetts. It forms a neat octavo pamphlet of 40 pages, and cannot fail of being extensively useful. The introductory paragraph exhibits at once his manner and the object of the Essay:

"There is one thing settled in farming, stable manure never fails. It always tells. There are no two ways about it. There is here neither theory, nor speculation, nor doubt, nor misgiving. 'Muck it well, master, and it will come right,' is an old proverb. It is considered a fact so well established, that nobody thinks of disputing it. There is an advantage in asking why barnyard manure never fails. The answer is easy. It contains all that plants need for their growth. If we know then what plants contain, we can easily tell what is in manure. The whole doctrine of manures then falls into two plain principles, on which hang all the law and the 'profits' of agriculture. 1. Plants contain and need certain substances which are essential to their growth. 2. Manure contains all those substances that plants want."

The essay consists of a thorough chemical examination of plants, divested of all technicality, as far as possible, and is a beautiful illustration of skill in the adaptation of science to the purposes of the farmer. Dr. Dana, it is well known, is a warm advocate of the formation of manures from peat or muck, by the addition of some of the alkalies, ashes or soda being preferred; and no inconsiderable part of this essay is employed in showing that a compost so prepared, possesses all the virtues of stable manure, while it is much cheaper, and in its results more durable. The numerous experiments made by Dr. Dana, have confirmed him in the opinions advanced by himself and by Prof. Liebig, that ammonia is the grand agent in fertilization; and it appears difficult to escape from the argument, as stated in the Essay. In connection with this subject he states a fact, important to those who rely on green crops, buckwheat, corn, clover, &c. for manures, which is that—"While the straws of the grain bearing plants afford for every ton of green crop turned in, about three quarters of a lb. of ammonia, green corn stalks and herds grass about five pounds of ammonia per ton, red clover affords seventeen pounds of ammonia per ton. The great value of clover in enriching land is thus made evident."

Dr. Dana's labors are now directed into the right channel. There are few men who are doing so much for the cause of agriculture as he; and he deserves the thanks of every farmer. We trust he will persevere in the broad field of usefulness he has chosen.

ANALYSIS OF SOILS.

A. G. JOHNSON, Esq. of Benton, Fla., says:—"I am in need of a treatise on agricultural chemistry, that I may analyze my soil and learn its character and constituents. Will you recommend something that will suit me?"

The volumes published by Davy, Chaptal, Dana or

Liebig, would undoubtedly either of them contain the information wished by Mr. J. But if his object is analysis, the Lectures on the Application of Chemistry to Agriculture, by Prof. Johnston, published at New-York by Wiley & Putnam, will be more complete and satisfactory than any work with which we are acquainted. The "Lectures" will also be found in the highest degree interesting on nearly every topic connected with the science of agriculture.

WHEAT ON THE ARISTOOK.

Our correspondent "Georgius," of Hallowell, Me., who makes some inquiries relative to the raising of wheat in the Aristook district, the kind best adapted to the purpose, and the price of seed, &c. is informed that there is no obstacle to the raising of good wheat in that latitude, which should deter the farmer from its cultivation. The chief difficulties there, will be the possibility of frost after the stalk has commenced or the ears formed, which would be fatal; or the smothering of the plants during the long winter, with such deep snow and the ground unfrozen. The first is it is presumed would be of rare occurrence; and the last sometimes occurs in all the northern states. Spring wheat would not be so liable to these casualties; but it does not produce as much per acre as winter wheat, and is not as valuable for flour. Purchasers make a difference of from eight to ten cents in favor of winter wheat. The most valuable wheat for flour is the white flint, although there are some varieties, perhaps, more productive on the whole. Gen. Harmon of Wheatland, Monroe co. in this state, furnishes the most beautiful seed wheat, and charges only twenty-five cents per bushel more than the price of ordinary wheat, making his sale price range from \$1.00 to \$1.25 per bushel. The cost of transportation from Rochester to Boston, would be probably not far from 75 to 100 cents per barrel. The best methods and times of sowing wheat, so as to have it endure the long winters of the Aristook country, will be most satisfactorily decided by experiment; but it may be remarked that as a general rule any where, wheat sown early and of large growth, is more apt to smother in the winter under snow, while it is not as liable to be thrown out in the spring and killed that way, as late sown wheat. With the exception of damage from the Hessian fly, winter wheat is not so liable to injury from insects as spring wheat, and is far less liable to blight or shrinkage, as it comes forward earlier, and is matured usually by the time the season most favorable for blight commences.

FOOD OF THE GERMAN PEASANTRY.

VEIT, in his work on Husbandry, gives the following as the kind of food, and the quantity, on which the farm laborers in Germany usually subsist, and his account is fully corroborated by Howitt's Domestic Life in Germany.

For breakfast, from one-half to two-thirds of a quart of skimmed sour milk, with an allowance of two and a half ounces of barley meal (or 2½ oz. to 8 persons) per individual. For dinner, dumplings of wheat flour, 4 ounces of flour to a person, with skimmed milk; or if meat is given, three-fourths of a pound, with barley bread, constitutes the allowance. For supper, 2 pounds of wheat meal, made into meal soup in skimmed milk, for ten persons, with a pint of skimmed milk to each, and a pound and a half of potatoes, makes the meal. There are of course some variations in the mode of serving up this homely food, and on feast days boiled pork and beer are sometimes added to the ordinary provisions.

That such a mode of living is not unfavorable to health, the condition of the German peasant and his general longevity fully prove, but we can hardly believe a person could perform the severe tasks which meet the American laborer, with such food and in such quantities as are specified above. Certainly the living of the German laborer is of the most simple and primitive kind.

WALL FRUIT.

"As our climate (Orange co., Vt., 44°) is too severe for growing the peach, quince, and every variety of our native grape, in the open field, could we not raise such fruits by the help of a fruit wall? An answer through your valuable paper, with some directions as to the best method of constructing a fruit wall, and some hints on training and pruning wall fruit, would much gratify

Yours, &c., G. S. P."

Walls produce an excellent effect on fruits reared against or near them, in two ways; they protect them from cold winds, and they increase the temperature in which the fruit is growing, giving, as far as their influence extends, the climate of 30° in the latitude of 40°. Many of the more delicate fruits could not be grown to perfection in England without the aid of walls; hence walls for fruit purposes are much more common there than here. The construction or materials of the walls are comparatively of little consequence, provided it be sufficiently high, thick, and of a dark color. Brick or stone are the best, and where gardens are walled with these materials, they may be easily used for training fruit. A southern exposure is of course required. Almost every one has seen the more delicate fruits, grapes, &c. ripened fully in the open air against a wall in the northern states, and where no other is at hand, the wall of the house or other buildings is frequently used successfully. In planting and training wall fruit, the trees or vines should be set at such a distance from the wall

as to allow space for the roots, and yet allow the branches or tops, as they shoot out, to be easily brought in contact with the wall where fruit is to be produced. To perfect the fruit, the branches should be trained or spread in such a manner as to allow the whole the benefit of the wall temperature as much as possible, and secured in such a way as to allow as little rubbing or friction as possible. The pruning must of course be conducted with reference to this object, or throwing the head of the tree in such a form that it may spread over the wall, and allow the fruit to be equally affected by the reflected heat. Our correspondent may find a full account of the methods and benefits of training, in Lindley's Theory of Horticulture, American edition, page 243 and sequel.

PREMIUM MILCH COWS.

AT WORCESTER.—At the October Cattle Show and Fair at Worcester, ten cows were offered for the premiums to be awarded on milch cows. By the regulations of the Society, the quantity of milk given in ten days, from the 10th to the 20th of June, and from the 10th to the 20th of September, was to be ascertained by weight, and the butter made from this milk to be reported to the committee.

The first premium of \$12 was awarded to Mr. Carpenter, for a cow of the Holderness breed, 4 years old. In the time specified, she gave 380 lbs. of milk, from which was produced 18½ lbs. of butter; and from the 10th to the 20th of September, she gave 355 lbs. of milk, which produced 17½ lbs. of butter. The cow was kept in pasture with ten others.

The second premium of \$8 was given to Mr. Watson, for a native cow, 4 years old. In the time specified, she gave 401 lbs. of milk, which made 18½ lbs. of butter, and from the 10th to the 20th of September, she gave 277 lbs. of milk, which made 15½ lbs. butter.

The third premium of \$6 was given to Wm. Eames, for a native cow, 8 years old. In the time pointed out, she gave 340 lbs. of milk, which made 17½ lbs. of butter, and from the 10th to the 20th of September, she gave 260 lbs. of milk, which made 13½ lbs. butter.

The fourth premium of \$3 was awarded to Mr. Miles, for a cow 9 years old, which in the ten days in June gave 385 lbs. of milk, from which 18½ lbs. of butter was made, and in the ten days in September, 368 lbs. of milk, producing 17½ lbs. butter.

Mr. Allen offered a fine one-fourth Durham cow, which produced in the time specified in June, 335 lbs. of milk, from which 16½ lbs. of butter was made.

AT NORTHAMPTON.—Ten cows were offered for the premium, which was awarded to Mr. Hitchcock, for a cow entered as a native. Her average product of milk for the six months ending the 1st of October, was 49 lbs. per day, and in June and July, 58 lbs. per day. In butter, her average product during the same time, was 11 lbs. per week, and in July alone, 14 lbs. per week. During this period, he used the necessary milk and cream for his family of four persons. The committee state that though considered a native animal, she clearly partakes largely of the blood of the Short Horns; and that among the animals entered as of native and foreign origin, there was more of the blood of distinct imported races in the former than in the latter.

REPORT ON PLOWS.

In our last number we published the Report of the Committee to award the Premiums on Plows at the State Fair at Rochester. The Committee have since sent us the annexed statement:

"Since the first publication of the report, it has been discovered that the Clerk of the Committee made a material mistake in his minutes of the draft of the Caledonia Plow. The average was put down at 345 lbs., whereas it should have read 422 lbs. This, it will be seen, is a great difference, and would doubtless have altered the decisions of the Committee in their award of premiums, had the error been discovered in time. As it is, all that can be done is to wait for another year, when it may be hoped there will be more perfect instruments and better arrangements for a thorough trial.

"The Committee wish further to state, that Mr. Codding of Ontario county, had a plow at the Fair, of larger size than the one he had at the trial, and of the same pattern as the one for which he received a premium; but it was sent home before the trial, because one of the Committee informed him erroneously that only one size would be tested of the same pattern. They now think that his large plow would have obtained the first premium if it had been at the trial."

IMPROVEMENT OF WHEAT.—At the late meeting of the Royal Ag. Society, Lord Hardwicke in some remarks on the importance of paying more attention to the selection of seed wheat, stated that in some experiments made to test the advantages of this, it was found that by pursuing a course of selection, the crops were doubled. "Thus the golden drop wheat had given 46 bushels per acre; a fine Suffolk variety 76 bushels; and another and still longer improved kind had reached 82 bushels per acre." Such statements illustrate most forcibly the importance of the course now pursuing by Gen. Harmon of Wheatland, for improving the wheat of this state, and the beautiful specimens exhibited by him at the State Ag. Fair at Rochester, and now in the Ag. Museum at Albany, show with the most decided success.

MONTHLY NOTICES.

ACKNOWLEDGMENTS.—Communications have been received during the past month from Hon. H. L. Ellsworth, J. S. Skinner, John Lewis, S. L. Gouverneur, L. A. Morrell, An Amateur, L. Ashburner, D. C. Goodale, A. McDonald, Q., Solon Robinson, G. S. P., J. M. Harlan, T. Edgar, Orange Co., S. Weller, D. A. P., T. Fountain, A Subscriber, L. Durand, L. Physick, Martha, Hazlewood, R. L. Pell, A. Walsh, J. E. W., N. N. D., Marion, J. L. Worthington, John Bonner, T. D. Burral, T. C. Baldwin.

BOOKS, PAPERS, &c.—Low's "Elements of Practical Agriculture," a new edition, (the 4th,) received through Messrs. Wiley & Putnam, from London, but from whom we are not apprised—Young's "Introduction to the Science of Government," from William Alling, Rochester—Mr. Botts' Address before the Henrico Co. Ag. Society; Rev. Mr. Henkel's Address at the commencement of Marion College, on the "Moral Dignity and General Claims of Agricultural Science;" Mr. Mather's Address before the Middlesex Ag. Society; Mr. Duckett's Address before the Prince George's Ag. Society, and a Prize Essay on the System of Farming best adapted to the Tobacco growing counties of Maryland, by W. W. W. Bowie, Esq., from their respective authors—The Doncaster and Nottingham Gazette, from Rev. H. Colman—The Cattskill Recorder, from A. Marks, Esq.—The Washington County Post, from Dr. Fitch—The Connecticut Courant, from E. Cowles, Esq.—The Cortland Democrat, from H. S. Randall, Esq.—The Long Island Democrat—Addresses of Hon. D. D. Barnard and Gen. Tallmadge before the American Institute, and the "Silk Cultivist," from A. Walsh, Esq.—Winter & Co.'s Descriptive Catalogue—Report of the Providence Athenaeum—Descriptive Catalogue of Prince & Co.'s Linnean Botanic Nursery, Flushing, and of Thomas Hancock's Nursery, Burlington, N. J.—Mr. Bacon's Address before the Berkshire Ag. Society, and Mr. Howard's, before the Muskingum Ag. Society, from their Authors—The Hampshire Gazette, from W. Lathrop, Esq., and The Elmira Gazette, from A. J. Wynkoop, Esq.

ILLUSTRATIONS.—We have now on hand, for the illustration of our next vol., engravings of a design for a House, by T. M. Niven—designs and plans for a Farm House and Farm Buildings, by J. J. Thomas—an improved Bee Hive, by "P."—a Gate, by J. Willard—views of Fences—portrait of a Shepherd's Dog—several farm implements, &c. &c. The drawings of Dr. Cloud, S. Hitchcock, Joseph Fowler, and D. A. D., are in the hands of the engraver. In its illustrations we intend the next vol. shall equal, if not excel, any preceding one.

POTATOES.—We give two papers in this no. on the subject of the rot in the potato, which is prevailing so extensively through the country. Thousands of bushels have been lost in this way in this vicinity. It will be seen that Mr. FOUNTAIN attributes the death of his swine to feeding potatoes which had been struck with the rot, though they were boiled and mixed with meal. The Utica Gazette mentions two instances where farmers lost their hogs from the same cause.

SUGAR FROM CORNSTALKS.—If any of our readers have succeeded in making sugar or molasses from the cornstalk the present year, we shall be glad to receive a statement of the process pursued, for publication.

MR. COLMAN.—We find in our English papers an admirable speech made by this gentleman, at the meeting of the Wentworth Farmer's Club, to which he was introduced by Earl Fitzwilliam, which it was our intention to have published in this paper, but we find ourselves unable to give it for want of room. It is pleasant to us to find Mr. Colman never losing sight of the necessity of ameliorating the condition of the laboring classes, and while engaged in receiving and communicating agricultural knowledge, never merging the moral and intellectual in the physical condition of the man. From the attention paid Mr. Colman, his facilities for observation, and his undoubted ability to improve his advantages in every respect to the utmost, there can be no question that his Reports will be of the highest value and importance.

"THE FARMER'S MINE."—Our amiable cotemporary in a neighboring city, whose pleasant criticism on our brief notice of the "Farmer's Mine," in the Sept. number of the Cultivator, appeared in the last number of his journal, is respectfully informed that the senior editor of the Cultivator did not pen the notice in question, and therefore his personalities might well have been spared. The senior editor of the Cultivator, however, is not so "ignorant of the usages of printers," as not to be aware that the practice of making books wholly with the scissors and paste, without the trouble of even connecting paragraphs, is somewhat unusual; and that when whole pages or chapters, are appropriated from a work translated with acknowledged care and accuracy, and at great expense, some acknowledgment of the translator's labors and merits, would seem appropriate and due. Further, the senior editor of the Cultivator cannot believe that our cotemporary could have been aware of the manner in which the "Farmer's Mine" was prepared, or he would have hesitated at endorsing it as "containing much original matter," as he has done in his notice of the publication.

D. K. MINOR presents his compliments to those who have used poudrette of his manufacture in the years 1841, 1842 and 1843, and requests of each a detailed statement of the crops and the soil on which it was used; the manner of applying it, and the result of its use, especially as compared with other manures, when used compara-

tively. His object is to publish a pamphlet giving both sides of the question, and one copy or more will be forwarded to those who comply with this request, that each may know how others have used it, and the result. An early compliance will benefit those who desire to use the article, and much oblige the inquirer.

THE SEASON IN TENNESSEE.—Extract of a letter from J. L. VAUGHAN, Esq. dated Caledonia, Nov. 15:—"This has been an unprecedented year from the first to the present date; winter having set in nearly a month ago. Heavy frost and rain every day or two: killing frost the 13th ultimo. Crops will be short of all kinds, and scarcity of money in the midst of all; otherwise the Cultivator would be taken generally."

THE FARMER'S ENCYCLOPEDIA.—We have received the 16th and last no. of Carey & Hart's reprint of this work. Very great additions and improvements have been made to it by its indefatigable American editor, G. EMERSON, Esq., making it one of the most valuable works the farmer can add to his library. The volume contains nearly 1200 pages, closely printed, and is sold in parts at \$4, or at \$5, bound.

THE SILK CULTURE.—No. 6 of Greely & McElrath's "Useful Works for the People," is a Treatise on the Silk Culture in the United States, embracing all the information necessary to the culturist, a brief history of what has been done, and a great variety of matters of particular interest to all who realize the importance of the silk culture to our country. Price 25 cents.

WINTER & CO.'S CATALOGUE.—A very great improvement has been made within the last few years by many of our nurserymen, in the getting up of their catalogues. Among the best of those we have seen, is that of Messrs. Winter & Co., proprietors of the Linnean Botanic Garden and Nursery, at Flushing, L. I., whose advertisement will be found in this paper. Persons, with one of these Descriptive Catalogues in their hands, will find little difficulty in making a suitable selection of trees and plants.

THE MEDICO-CHIRURGICAL REVIEW.—The October no. of this popular medical work was promptly re-printed by R. & G. S. Wood, New-York; 300 pages octavo, per no.—quarterly, at \$5 a year.

BLACKWOOD'S MAGAZINE for November, has been received from the New World office, New-York; where it is re-printed in two or three days after its arrival, at the low price of \$2.00 a year.

OATS AS A GREEN MANURE.—We have noticed several instances lately in which this crop is highly spoken of for growing to be turned under as manure. A late writer in the South. Tem. Advocate, says he makes a practice of turning in oats annually, and finds his soil constantly improving. He allows no land to lie idle, but in the fall plows in all his stubbles, weeds, straw, &c. with such green manures as he may have on hand. Their decomposition furnishes a good preparation for the next year's crop.

A GOOD COW.—Dr. Parker of the Asylum at Columbia, S. C., has a small native cow which cost him only ten dollars, which for two years past, has given milk constantly at the rate of from eight to twelve quarts per day; so says the S. C. Register of Agriculture of Oct. 26. It is a common practice at the great milk dairies in the vicinity of London, to keep a cow in milk as long as possible, as when she ceases to give milk she is fattened for the butcher. Few, however, even of the most celebrated breeds, equal in quantity for so long a time, this Carolina cow.

FEEDING ANIMALS.

SOME very useful remarks, and important tables of comparison, are given in a late number of the Royal Ag. Soc. Journal, from the French of M. Antoine. The most important of these tables we may give hereafter, but at present we shall merely quote what is said about feeding animals.

"A certain quantity of food is required to keep an animal alive and in good health; this is called his necessary ration of food; if he has more, he will gain flesh, or give milk or wool. An ox requires 2 per cent of his live weight in hay per day; if he works, he requires 2½ per cent; a milch cow 3 per cent; a fattening ox 5 per cent at first, 4½ per cent when half fat, and only 4 per cent when fat, or 4½ on the average. Sheep grown up, require 3½ per cent of their weight in hay per day, to keep in store condition. Animals while growing require more food and should never be stinted."

According to this calculation, a sheep of 50 lbs. weight would require 1 lb. 11 oz. per day; and one of 100 lbs. weight, 3 lbs. 5 oz. Or it would require 199 lbs. of hay to keep the first sheep 4 months; and 397 pounds for the same time the last. This it is believed agrees very well with the experience of our farmers, who are in the habit of allowing about one ton of hay to every 10 sheep. It must be remembered, however, that this calculation is based on the very best hay; so that when the farmer whose sheep have had this quantity of thistle, johnswort, daisy, &c. &c. but all called hay, dealt out to them, finds his sheep dying off by dozens in the spring, he need not attribute it to an error of calculation. The great difference between hay of the first quality, and that of inferior kinds, is too much overlooked by the farmer. According to M. Antoine, if 100 lbs. of good hay is taken as the standard, it will require 120 lbs. of the second quality to keep an animal in as good condition as the first; 140 lbs. of the third quality; and so on, until hay may be so poor as scarcely to support animal life given in any quantity.

IMPROVEMENT OF DOMESTIC STOCK.

THE exhibition of stock at the numerous Cattle Shows and Fairs that have been held the past season, proves most conclusively that public attention is awake to the importance of their improvement, and in the great mass of reports of committees presented to the several associations, it is gratifying to find that the process of improving the native breeds by crosses, is in most cases recommended and insisted upon. In the July no. of the Cultivator, we called the attention of our farmers to the necessity of such improvement, and pointed out what we considered the most certain and ready means of effecting it. It may not be amiss here to recapitulate the positions taken by us in that paper, as circumstances have given it an importance and influence little anticipated at the time of writing.

In the first place, the advocates of improvement were considered as divided into three classes: those who propose substituting an entire stock of pure blood animals for those at present existing; those who maintain that we have in our native breeds all the materials for improvement, and that a recurrence to foreign blood is unnecessary; and those who are in favor of selecting choice and high bred foreign stock, and crossing them with our best native animals, keeping in view the points or qualities we are most anxious to secure and perpetuate. To this last course we gave a decided preference, and proceeded to show the best methods of carrying out the course preferred by us. In doing this, we made a rapid survey of the principal improved breeds, and gave a preference to the Short Horns as the breed most highly improved, the one in which the good qualities could be considered as most permanently fixed, and therefore the one to be selected for the purpose of improving our native stock by skillful crossing and breeding. Taking it for granted that no one breed of animals is absolutely perfect or incapable of further improvement, and that all animals of even the best breeds are not uniform in their desirable points or qualities, we proceeded to state some rules in selecting the animals to be used in breeding. And first, we recommended that a pure bred bull derived from a breed, or particular family of a breed, possessing in a most marked manner the qualities desired, whether aptitude to fatten, deep milking, excellence in the yoke, kind handling, &c. &c. should be secured; and secondly, that the best native cows, selected with reference to the same desired qualities, be crossed with the bull so chosen. We showed why breeders had so frequently suffered disappointments, and traced the difficulty to breeding from half blood bulls, when the true course would be, if the progeny of a cross between a pure blood bull and a native cow was a bull calf, to fit him for the yoke or the shambles; if a heifer, to put her to a pure blood bull, and there would be a reasonable certainty of a good calf. By this constant recurrence to pure blood, the whole stock would be rising; by using half blood bulls, it would as certainly be sinking. Proceeding in this way, using full blood bulls and the best native cows, we argued that the way was prepared for an advance on any of the present improved breeds; or, in other words, that a breed might be produced more valuable to the American farmer, and combining more of the qualities desirable in a stock for his use, than any of the foreign ones. Basing our statement on the fact that no breed is absolutely perfect or incapable of further advance, and aware that improvement has been made in the way before pointed out, we affirmed the possibility of improving one breed, by a cross with another one, decidedly inferior as a whole to the one improved, and we adduced a suppositious case to show that there was such a possibility. As this position of ours has been most strangely mistaken, and our meaning most strangely perverted, to use a very mild expression, we shall be pardoned if we define it in this place more fully.

In looking over the history of improvement in animals by breeding, and in no country has this been carried to such perfection as in England, it appears evident that the first step was to select the best breed, and the best animals of this breed, and then in whatever point or quality they were deficient, to supply this deficiency by crosses with animals possessing the desired form, point or quality in a remarkable degree. Such it is clear was the course pursued by Collings, Berry, Bakewell, Ellman, &c. &c. If an animal possessed the requisite quality in a great degree, and particularly if it was one permanent and constitutional in the race, that animal was selected to impart the desired quality to the improved breed, even were it inferior in some respects to the one to be improved. It is true there was a risk in the operation; it is true that but a portion of the progeny might possess the desired quality, and it is possible the other portion might be poorer than either, but what cared the breeder for that? He had gained his object; he had secured in his breed the desired quality, and by breeding from those that possessed it, and not from those that had it not, it became fixed and permanent. It is true, skill and judgment were required, and without these no man need expect success in breeding. We are aware that another canon of breeding has been laid down, which is, "if an animal be deficient in any one point or more, it must be crossed by another animal equal to it in all its good points, and superior to it in all its deficient ones." To show the unsoundness of this, we have only to refer to facts. Mr. Colling resorted to the Galloway cross to give vigor and constitution to his Short Horns, impaired by in-and-in breeding, and the result was a most happy and successful one. In this case, was the Short Horns

breed equal to the Galloway in the point of constitution? It was certainly superior in others, and if equal in this, where the benefit of a cross? The truth is, to secure a particular quality, Mr. Collings crossed his Short Horns with a breed inferior in every respect, a single point or quality excepted, to his fine animals, and every breeder knows with certain and eminent success. Mr. Berry found that too much attention had been paid to the form and fattening qualities of his fine stock of Short Horns, and that their milking qualities had been neglected. Desirous to reimport to his herd this quality, what did he do? He chose a bull from a family superior in milking properties to his own, but inferior in other respects, as a comparison of the portrait of his bull with that of Lord Althorpe, in Youatt, will show, and soon found that without deteriorating his original stock in the least, he had added to their qualities, by a cross with an animal on the whole inferior to his own, that of being excellent milkers. These instances, and such are not confined to cattle, are sufficient, we think, to demonstrate the possibility of improving a breed of animals by a cross with another inferior in many respects. We have never advised our breeders to crosses with the native stock, with an idea or purpose of improving the pure Short Horns, although they have been improved by a cross with native stock, or history is but a fable. We know the risk attendant on such a process too well to advise any to incur it needlessly, and we leave such an absurdity with those who coined it. Our object has been to urge upon our farmers the importance of improving their stock of native animals by crosses with pure bloods, never using part blood males, and always recurring, after a single cross, to pure blood; and we hope no idle clamor about "scrubs" and "dunghills," or charges of enmity to the Short Horns or other improved breeds, or false issues as to the ends we aim at, in urging this subject of the improvement of domestic stock, will prevent our farmers from going steadily forward in the work which the exhibitions of 1843 prove has been so successfully commenced.

Of one thing we are certain: if the Short Horns or other improved breeds have enemies, they will be multiplied a thousand fold by the injudicious course of some who profess to be their friends, *par excellence*, are pursuing. The results of these indiscriminate attacks on our native animals, and the dignified appellations so liberally bestowed on the animals themselves and those who venture to think our native breeds possess some excellences that may be turned to good account in connection with pure blood animals, are beginning to be felt, in a reaction of the public mind that cannot fail to be injurious to the cause of improvement. Well may the breeders of pure blood animals exclaim, "If these men claim to be our friends, heaven save us from our friends!" We desire to see in every neighborhood of farmers a pure blood bull of some of the improved breeds, the one that shall be the best adapted to the wants or wishes of that particular place; and with our knowledge of these breeds, we doubt not that in a great majority of cases, the choice should fall on the Short Horns. Let not the breeders of pure blood Short Horns, Herefords, Devons or Ayrshires be disheartened. Public opinion is becoming enlightened; the true value of pure blood in improving our native herds is being better understood and appreciated. The times, that have been so long "out of joint," are becoming better, and the prospects of the farmer and breeder are, as a matter of course, brightening.

FRENCH AND BELGIAN FARMING.

We find in Mr. Weed's letters, the following account of the manner in which a French harvest is gathered. Such notices, by contrast, show most forcibly the wide difference existing between modern and ancient husbandry.

"A farmer of Western New-York, who dashes into his hundred acre wheat field with a force sufficient to cut, rake, bind, and thresh it, in two or three days, would be infinitely amused with the primitive mode of harvesting in France. Here the wheat is all cut with the sickle, and then bound by women, who place the sheaves in a sort of scraggy rack upon the back of donkeys that move along behind the reapers. When the donkey gets loaded, (some eight or ten small sheaves in each of his wooden saddle bags,) he is marched off to the road, where the wheat is transferred to a clumsy wagon, and drawn lazily hence by three French ponies, tandem, to the granary! In this way, a dozen people consume a day in harvesting an acre. Two-thirds of the people I saw at work in the fields, were women."

As a contrast to the foregoing, we present the following from a letter written by a correspondent of the "Tribune." It shows conclusively the advantages of an improved husbandry:

"The country between Ostend and Bruges is, like nearly all Belgium, a perfect paradise for farmers. It is as level as a floor, and is most laboriously cultivated, till every inch of ground is compelled to produce its utmost. It is one vast garden, and the tulips of the Dutch fanciers do not receive more unceasing attention and nursing, than the turneps and cabbages of the Belgian farmers. The fields are covered with men and women, digging and weeding, and well they may, for in one district (St. Nicholas,) there are 5210 inhabitants to every square league. The superficial farmers of America, who imperfectly turn up the soil of a thousand acres, might take a profitable lesson from the care and skill which here enables every acre to support more than its man."

THE BEST COUNTRY FOR SHEEP.

THE question as to the best part of the United States for sheep husbandry, and the growth of wool, appears of late to have elicited considerable attention, and very different sections of the country have claimed the preference in this respect. That sheep will succeed in nearly every part, is doubtless true; but when we take into view the difference in soil and climate, it is scarcely possible that some parts should not be better adapted to the production of wool, or furnish it at less cost than others. It has been generally supposed that warm climates were not suited to the growth of the finer wools, however favorable they might be for the sheep itself; but from the experiments that have been made in the southwestern states, in the case of the Merino and Saxon, it would seem that this supposition was erroneous, at least so far as the interior of these states is concerned.

Maine, Vermont, the south of New-York and the north of Pennsylvania, Ohio, Illinois, Wisconsin, Iowa, and Tennessee, have respectively claimed the distinction of the best sheep and wool districts; a fact in itself sufficient to show there can be no reasonable limit to the production of wool in a country where it can profitably be grown over so large a surface. Still later than the claims put forth by the states and territories abovenamed, there appears in the Louisville Journal, an able and elaborate paper from the pen of Judge Beatty of Kentucky, on this subject, in which a great mass of evidence is adduced, from the testimony of gentlemen on the spot, to show that the western part of Virginia and the eastern part of Kentucky, or the whole region occupied by the slopes and valleys of the Cumberland ranges, are excellently adapted to sheep culture. The cheapness of the lands, only from five to ten dollars per hundred acres; the fine water, and elevated airy nature of the district, insuring the health of the animal; the ready formation of excellent blue grass and other pastures, and the shortness of the time in which it is generally necessary to furnish animals a trifle of food in the winter, generally from five to eight weeks, are certainly circumstances much in favor of the position taken by the Judge. There are, however, some counteracting causes, such as the descent of wolves occasionally from the mountains, and the presence of poison laurel and ivy, killing sheep that eat them; but as the wolves are mostly exterminated, and sheep accustomed to such plants will never feed upon them, he considers these objections as of little consequence on the whole.

The claims of Wisconsin and Iowa are founded on the fact of the immense natural pastures already existing, furnishing abundance of food for both summer and winter, and at present costing absolutely nothing; while wool is one of those articles that costs less in transportation, in proportion to its actual value, than almost any other article, thus enabling the wool grower of Wisconsin or Illinois, to offer it at the Lowell Factories at rates but little higher than those of Vermont or New-York. We do not think, however, that the great question as to the effect which prairie lands, particularly what are called the wet prairies, will have on the health of sheep, as sufficiently settled by experience to determine the value of these lands for sheep culture. Level, wet lands, or even those not wet, have not in general been found as suitable for sheep as drier, or more hilly ones. In Europe, it is in such districts, or where low meadows abound, that the foot rot makes such ravages in flocks, and where the disease has shown itself in this country, such districts or tracts have been found to aggravate it. If on the contrary, it should be found that sheep on the prairies do not suffer from foot rot, and those complaints that usually appear where sheep are kept in large numbers, it seems to us that Wisconsin and Iowa hold out great inducements to the wool grower.

Although on all grain farms more or less sheep are necessary, it can scarcely be expected that the best grain districts of the Union will leave the production of wheat and corn for that of wool. And admitting that wool does not deteriorate at the south, we cannot expect the cotton planter to forsake cotton culture for wool growing. The genius of their institutions forbid it. That the wool business of this country is destined to exercise an important influence on our agricultural destiny, is certain; the two hundred millions of dollars now invested in its production, will in a few years be doubled, and every thing relating to such an interest cannot be otherwise than important. We are glad the discussion of this matter, as to the best wool growing district has arisen; it will be the means of eliciting facts and establishing truths, especially if the investigations should be conducted by others as they have been by Judge Beatty.

STUMP MACHINE.

In our Oct. no. we published a drawing and description of a stump machine, about which our correspondent, "M. A." wishes further explanation. He says:—"Will H. T. C. tell us how that frame, constructed as it is, can sustain such a huge wheel and axle, with nothing to support it from swaying over to the right or left, but the ends of the axle passing through the upright posts, with pins driven through the gudgeons to keep the posts to their places? What if one end of the axle should be, by the make of the ground or from some other cause, a little more elevated than the other? Would not the chain draw perpendicularly, or incline to, and when the power is applied to the wheel, in an instant crush the whole machine to the ground? Or again: how is this ponderous machine to be moved by teams, with no-

thing to keep it to its proper position but those two round tennons, some ten feet from the ground? How quick the post is split and the bearing of the gudgeon is destroyed, if one team should start a little too soon for the other upon the opposite 'sill.' Messrs. Editors, I hope H. T. C. will be able to explain these difficulties, which I find in his stump machine. When he says that for fifteen years it has been in constant requisition, I conclude there must be something about the drawing or description which I do not understand."

PLOWING IN CORN FOR MANURE.

We find in the Louisville Journal of October 25th, an excellent article by a correspondent on the subject of manuring land, by sowing corn broadcast and plowing it under, as a green dressing. It is only one of the many instances which have come to our notice the present year, in which sowing corn has been experimented upon, and in every instance with marked success.

In the case recorded in the Journal, the field contained 37 acres, and the year before had been in corn, and previous to being sown, had not been broken up, and the old stalks still remained on the ground. The latter part of April, 30 acres were sown with corn, at the rate of two bushels to the acre, and 7 acres at the rate of three bushels per acre. The whole, old stalks and all, was covered by the plow about two inches deep. It came up and grew equally until about two feet high, when a difference began to appear, and at maturity the thick sown was but five feet high, while that sown thin was seven or eight. The writer is decidedly of the opinion that two bushels or even less is a sufficient supply of seed per acre. To turn the corn under, a heavy roller was used, which pressing and mashing the corn close to the earth, and in one direction, enables the plow to cover it perfectly. In this way, stalks ten or twelve feet high may be crushed down and turned under without difficulty. The writer adds:

"Were my only object the rapid improvement of my soil within the shortest space of time, I would not seek further or better means than first sowing down thick with rye, which I would plow under just before the time of ripening, to prevent its seedling the ground, and upon which I would sow one bushel and a half of corn per acre; thus in the same season plowing under a heavy coat of rye and corn, which, in the short space of twelve months, will equal if not surpass any benefit which can be derived from clover in two years."

THE HERD BOOK.

We have been favored by E. P. PRENTICE, Esq. Mount Hope, with a copy of the new and long expected vol. (the 4th) of this work. It is an octavo volume of over 800 pages, and is devoted exclusively to the pedigrees of Bulls, numbering from 2898 to 6699. Among them are 130 bulls bred in this country, by Messrs. Prentice, Rotch, Bement, Van Rensselaers, Sherwood, Randall, Lennox, Hollis, and Gregory, of this state—Messrs. Rodman, Derby, Lathrop, Sisby, and Williams, of Mass.—Messrs. Bartlett, Collins, Hudson, Paseo, Phelps, Colton, Watson, and Whitney of Conn.—Messrs. Brinton, Burton, Cope, Morris, and Powell of Pa.—Messrs. Clay, Gano, Majoli, Martin, and Taylor of Ky.—Messrs. Mahard, McIlvaine, Sullivan, Warfield, and the Ohio Company of Ohio. A fifth vol. of the Herd Book is now in press, to be devoted exclusively to females.

P. S. A few copies of the fourth vol. have been sent us for sale. The cost, including duties, delivered here, is \$7.50.

IMPROVED RAIL FENCE.

EXTRACT of a letter from HENRY WESTON, Rensselaer, Indiana:

"I observed in your no. for October a communication from S. E. T. and a figure (79.) of a rail fence, which I intended to bring to your notice. I have had it in use for two years, and can speak experimentally of its qualities. It has not required the additional rider he suggests, nor have I even driven the stakes, though that is proper. It is more solid and firm, is more easily put up, occupies four feet less ground, is more readily removed or opened for gates, and any thing will answer for stakes, the chief object being to hold the riders to their places. I have for this purpose tossed in mere limbs of trees, letting them fall into the angles formed by the top rail and the rider. The crossing of the stakes at bottom fills the angle of the fence that would otherwise permit the passage of unruly sheep or hogs. In a word, it is perfectly formidable."

The Genesee County Agricultural Society, seems to be going ahead finely—the last Fair, holden on the 4th and 5th of October, showing 367 animals offered for premiums—one hundred articles of domestic manufacture, &c. An able address was delivered by T. C. Peters, Esq.

In seasons of distress, the mind recovers itself by taking hold first of one hope and then of another, until all its functions are restored; and it feels once more, that there is pleasure in looking forward and anticipating the light and warmth of to-morrow's sun.

The range of earthly good is narrow and soon trodden; after a short time there is no variety, and the enjoyment is without hope.

PROGRESS OF SOUTHERN AGRICULTURE.

ONE of the most gratifying signs of the times, and one which as clearly, perhaps, as any one thing, marks the advance of sound opinions on the subject of farming in the country generally, is the evident improvement which has taken place within a few years in the method of southern farming. Formerly there was no rotation, no change. The leading crop, whether tobacco or cotton, was repeated until the soil was exhausted, and a long time was required for nature to restore its productive powers, an operation in which it was left entirely unassisted. All the reliance of the planter was on this single crop; with it he paid the debts previously contracted; with this crop he purchased his clothing and a large part of his provisions, and on it he depended for the supply of the many luxuries which habit had rendered necessary. If, as was sometimes the case, the leading crop did not succeed; if his rice, tobacco or cotton failed, he had no others to fall back upon, his resources at once fell short, and some privation was the necessary result. Sacrifices of some kind became necessary, and where these were not submitted to, vexatious debts, weighing like an incubus on the prosperity of the planter, were of course contracted.

In a very large portion of the south, a better state of things is beginning to prevail. It is true the crops we have named are still the staple ones, those that are relied upon for sale or export, and they will doubtless continue to be so. But while this is the case, the agriculture of the south is becoming more mixed; the whole labor is not put upon an article for sale; the culture of wheat and other grain, and the growing of cattle and hogs, receive a considerable portion of the industry and capital of the planter, and the results are of the happiest nature. This mixed husbandry has induced the planter to pay more attention to the rotation or change of crops, and the preparation and use of manures; and while it is believed there has been no material falling off in any of the principal products, there has certainly been a vast increase of those that formerly were wholly neglected, or considered only of minor importance. The number of those who grow their own wheat, corn and oats—who make their own beef, pork and mutton, has increased at a rapid rate; and as a natural result, millions of dollars that annually went from the south to purchase these and similar articles, are now retained at home.

These things, however, must be considered as but the beginning of a better husbandry in the fertile south; as only examples of what may, and will hereafter become general. New plants, new implements of husbandry, new methods of culture, new and improved breeds of animals, will gradually take the place of the old; and the only wonder will in a few years be, that such barbarous agriculture could ever have been tolerated. There will be some failures in these efforts at improvement, there can be no doubt. Mistakes will be made as to soils, methods and adaptation; but these very failures will aid the general advancement; they will show the things to be avoided, as the wreck of a ship sometimes points out to fleets that follow, the shoals that are to be shunned in their course.

That the cultivators at the south are producing far better crops of grain than heretofore, is evident to all familiar with the history of their products—crops which five years since would have been pronounced incredible. For instance, in South Carolina, where a short time since a correspondent of an agricultural journal declared no man had ever seen 75 bushels of corn raised on an acre, and that the man was unreasonable who was not content with 25 bushels per acre, more than 75 bushels to the acre have been raised the past season, the result of intelligent and skillful farming. The following statement respecting a wheat crop in Maryland, raised by a gentleman of Queen Annes county, which we find in the Maryland Telescope, will show how wheat may be grown at the south; and we may add, in Virginia, the Carolinas, Georgia and Alabama, fine crops of wheat have rewarded the labors of the intelligent farmer the past season:

"Our respected fellow citizen, W. Carmichael, Esq., raised this year upon 20 acres of land, ONE THOUSAND AND TWENTY-SIX bushels of Mediterranean wheat, being a fraction below 51½ bushels per acre, averaging 60 lbs. to the bushel. This is a very great yield, larger, we believe, than was ever made before on this shore, and we question whether the state can beat it. This shows what good farming can accomplish. The land on which this wheat was raised is not better wheat land than two-thirds of this county, but has been greatly improved by the use of marl and marsh mud."

We question whether the United States can show a better 20 acres than Mr. Carmichael, and the secret of his success is to be found mainly in his improved culture, in his "marl and marsh mud." In the former volumes of the Cultivator, we have recorded an instance, among many others, in which *pond mud* spread on an exhausted soil, gave about 20 bushels of corn per acre over the same quality of soil not so treated; yet even now in every part of the Union, these elements of fertility, marl and mud, are in immense quantities lying neglected, in the immediate vicinity of places where they are the most wanted.

So, too, in districts where the planters depended on the importations of pigs from Tennessee or Kentucky, for the making of their bacon, droves of the finest porkers, in numbers nearly adequate to the wants of the inhabitants, are now annually bred; and the same re-

marks will in a good degree apply to the supply of a stock of cattle for domestic use. Animals of the best breeds have been introduced; and the feeling that the planter should in these matters depend more on himself, is producing wonders in their spread. In Virginia, where but a few years since sheep were objects of such detestation that one of her most eminent statesmen declared he "would go twenty rods out of his way at any time to kick a sheep," fine flocks of these animals are now to be found; and some of the finest samples of wool we have seen, were from sheep grown in Mississippi, thus refuting the prevalent notion that such climates are unfit for the production of fine wool.

We repeat that we hail these things as indications of a far better day for the southern agriculturist than he has yet seen; more permanent and enduring, because based on the sure foundations of rational improvement, and the spread of intelligence. The single crop culture has been fatal at the south, as it must be every where; and the adoption of a better system, one which increases the chances of success, and lessens those of failure, must be considered as one of the most favorable indications in the horizon of American agriculture.

ERGOT.

WRITING of the investigation which has been going on in the Cultivator as to the causes of abortion in cows, a correspondent says:—"I perceive that some attribute this difficulty to *ergot*. Now many of your readers do not know what *ergot* is, or where produced; will you be so good as to tell us what is meant by the article, and on what plants we are to look for it?"

The substance called *ergot* is also known by the name of *Secale cornutum*, *spurred rye*, &c., and is occasionally found on many of the cereal grains and grasses, but most commonly on rye. There appears to be no little discordance among botanists and vegetable physiologists as to the cause of this disease of seeds. Some attribute it to the puncture of insects, some to an altered condition of the pistil, and some consider it a fungus. Decandolle calls it a fungus, the *Sclerotium clavus*; Endlicher does not admit it as a real fungus, but considers it a diseased state of the seeds, generated by a particular combination of external influences. During the formation of the seed of rye, in which it most commonly appears, some of the ears will be found to contain seeds greatly enlarged and elongated, gradually protruding from the chaff, with a whitish or greenish color at first, but becoming brown or black on exposure to the air. The interior is a light gray. It sometimes grows to the length of two inches, warps and curves like a horn; hence the name of *cornutum*. When fresh, these horns are tough, but become hard and brittle in drying, and in time it loses the nauseous, acrid taste and peculiar smell which indicates its fungous origin. Its active properties are supposed to reside in an extractive substance, called by Wiggers *ergotine*. Willdenow asserts that *ergot* may be produced on rye at any time, by sowing it in a rich, damp soil, and watering the plants freely in warm weather.

Ergot is found on some of the grasses, and perhaps occasionally appears on all. We have seen meadows in which June grass (*Poa pratensis*) abounded, which were sensibly discolored, when the grass stood until ripe, by the immense number of the black horns that covered almost every head; and when such hay was threshed on a floor, (a precaution deemed necessary to prevent its apprehended effect on the young cattle to which it was to be fed,) the *ergot* might be scraped up by quarts. We have also found it occasionally, but rarely, on cat's tail or timothy, (*Phleum pratense*.) and last season we for the first time saw it growing on spring wheat. This spring wheat had been sown where winter wheat had been killed out, and among its occasional stalks of rye were to be found loaded with most magnificent horns or spurs of *ergot*. When the spurs are large, there are but few to the ear, but sometimes the character of nearly every kernel will be changed, and the seeds, though but little enlarged, possess all the nature or properties of true *ergot*. It is when it assumes this form that it produces the dreadful effects, described by medical writers as at times exhibited in Germany and Hungary on the poor, who are driven by want to use rye containing more or less of this fungus for bread. The mildest form of these effects is a nervous derangement of the system; the most severe nausea, vomiting, convulsions, frequently terminating in death, or when not immediately fatal, ending in *dry gangrene* or mortification, during which the feet and fingers swell and fall off by a slow but certain decay. The effects of *ergot*, used as a medicine, it is unnecessary to refer to in this place.

If eaten by cattle, we have no doubt it would exhibit its effects in some marked form. That it has produced hoof ail or gangrene in cattle, we have not the slightest doubt; the evidence we have had on the subject forbids it. That it may produce abortion in cows, we also think probable, but in some of the cases mentioned in the Cultivator, it could not have been the active cause, as none of this substance could be detected in the hay used or in the fields. If, as is asserted by Wiggers, the white dust or bloom sometimes found on the surface of the spurs will produce it on other plants, if sprinkled on them or sown on the earth about their roots, it would be well to avoid the use of grain for seed in which this fungus is found, as its poisonous qualities render it a substance much to be dreaded, whether in grain or grass.

"SOUTHERN FRUITS."

UNDER this head, we find in that valuable journal the Southwestern Farmer, of Oct. 20, a defence of the climate and fruits of the south against an article which appeared in the Farmer's Monthly Visitor, and was noticed by us in the Cultivator. It related to the rapid growth and perfection of apples grown from northern trees, such as the Russet, Greening, Pippin, &c., when planted near Mobile, and the consequent rapid decay of the trees, rendering their renovation by new importations from the north necessary every few years. Our friend PHILLIPS, from whose pen the defence proceeds, says to us, as editors of the Cultivator, "Now it matters not if the 'Farmer's Monthly Visitor' should have published it, and you merely, as you do, noticed it, but as there is enough expressed to show you why their life was fleeting, you should have said that they were suffered to overproduce themselves, thereby doing a palpable injury."

Now we can assure our worthy coadjutor in the cause of agriculture, that at the time of penning the article in question, the idea of overproduction never presented itself to our minds, the large profits indicating rather the demand for fine fruit than the actual quantity produced. Even now we see nothing that countenances the idea of overproduction, since at the north, overproduction and fruit of good quality, such as the Mobile apples certainly were, are generally incompatible or never occur together. We remembered, too, at the time, the remark of Mr. Kendrick in his Orchardist, that the apple would succeed in nearly every part of the United States, except the maritime districts of Carolina, Georgia and Florida, and those near the Gulf of Mexico, and considered the fact stated by the F. M. V. a proof of the correctness of the Orchardist. Indeed, we believe it to be a law in all parts of the world, certainly we have yet to learn the exception, that as the climate and temperature approach that state fit for the fig, orange and other tropical fruits, it becomes less suitable for those whose home is the temperate zone, such as the cherry, apple, pear, &c. That the peach should flourish in the extreme south, was to be expected from its origin and its habits; that it actually does so, we learned long ago from Mr. Darby, who assured us that he found excellent peaches in the western part of Louisiana, near the gulf.

We cannot but think our friend and correspondent is in this case a little too anxious to appropriate all the good things of the United States to the "sunny south," and his own particular part thereof. We grant them freely their cotton, sugar, rice, figs and oranges; and why may not we, in our "bleak and frozen north," enjoy our wheat, apples, cherries, quinces, pears and maple sugar? But if, after the experience which it is acknowledged the south has not had as yet, on the subject of fruits, owing to the neglect of planters generally, it shall be shown that the fruits usually considered as best adapted to the middle and northern states, shall succeed equally well or even better at the south, we shall rejoice at the fact, as it will furnish additional proof of the vast resources and capabilities of our extended and common country. And further, we can assure our southern "brethren" that the cry of "barrs" and "painters," which they say has been set up by some at the north, to prevent emigration or visits to the south, has had so little effect upon us, that we promise ourselves the pleasure at some future time, of taking them by the hand at their own fireside, and receiving from them the cordial welcome with which they would be greeted should their wandering feet ever lead them to the shores of the Hudson.

CHINA PIGS—MERCER POTATOES.

"MESSRS. EDITORS—Can you inform me where I can obtain a pair of genuine China pigs? I should like extremely to obtain a pair this fall, for the purpose of crossing with a superior native breed now in my possession. I should also like to have you give a description of the Mercer potatoes; their form, color, &c., and whether the Chenangoes and Mercers are one and the same variety. D. C. GOODALE.

Chimney Point, Vt."

As to the China pigs, we are unable to state where the genuine ones may be found. As they are too small for the farmer's hog, and as the Berkshire, while it was larger, possessed nearly all the good qualities of the former, it soon took the place of the China among breeders almost exclusively. If any of our friends have pure pigs of this breed, perhaps they would confer a favor by a notice in our columns.

The Mercers, Chenangoes, Neshannocks and Philadelphia potatoes, are, as appears from a paper published in the "Educator," and copied into the Farmer's Cabinet, vol. 4th, page 64, one and the same. From that paper, it seems the true name should be the Gilkie, as it originated from seed sown by John Gilky on the bank of the Neshannock creek, about five miles above its junction with the Chenango at Newcastle. The first was produced nearly forty years since, and it has thence spread over nearly the whole United States. The Mercer is in shape much like the long pinkeye, but generally larger and longer. It is slightly tinged of a reddish or purple color, and when cut, streaks of the same color are found running through it. When cooked, these mostly disappear. It is one of the most valuable of table potatoes, white, mealy, and of good flavor.

Manure is to a farm what food is to an animal.

DICTIONARY OF TERMS USED IN Agriculture and its kindred Sciences.

MOON.—The moon is a well known body in the heavens, revolving around the earth, at a medium distance of 237,000 miles. There are few of the heavenly bodies that have more superstitions connected with them, and many of these are connected with agriculture. That the moon exerts an influence as far as the earth, is proved by the action of the tides; that it can have any perceptible influence on vegetation or the products of agriculture, few well informed persons at the present day believe. Formerly much attention was paid to the age of the moon in sowing and planting, killing meat, &c. &c., but there are now very few who pay any notice to that body in their farming operations, but plow and sow, kill and eat, as though no moon existed. It has been found that the earth is the place for the business of the farmer, and that the less he has to do with all foreign bodies the better; that a proper condition of the soil, manuring and tilling, has more effect in securing a good crop than any moon sowing can do; and that pork well fed on corn will make good bacon or pork not liable to shrink in the pot, no matter what might have been the age of the moon at killing. The following will serve as a specimen of some of the notions formerly entertained; it is from Tusser's Five Hundred Points of Good Husbandry:

"Sow peason and beans in the wane of the moon,
Who soweth them sooner, he soweth too soon;
That they with the planet may rest and rise,
And flourish with bearing most plentiful wise."

MOSS.—Mosses are minute plants, never more than a few inches in height, and frequently merely discernible as a slight green stain, yet exercising no little influence on soils, and frequently, by their presence, indicating its peculiar qualities. Mosses are the first plants that spring up in inorganic matter, and earth dug from great depths and kept in closed glass vessels, is soon covered with them. Where mosses abound on the surface they usually indicate a damp soil, and on meadows that are wet, they frequently become so close as to choke, if not to obliterate the more valuable grasses. Mosses are usually the cause of bogs and morasses, or rather occupy such when formed. They retard the passage of water; new growths are continually taking the place of that which is decaying; trees of considerable size are soon enveloped, and the constantly increasing mass of vegetable matter becomes what is called a moss, or in other places a peat bog. Thorough draining is the most effectual and speedy cure for mossy lands. When made dry, quick lime, or even common sand and gravel mixed with the surface matter, will soon fit it for crops, and the mosses cease to grow at once. Where lands can be submitted to its action, the plow is a sure remedy for moss; where it cannot, and the grasses are becoming injured, a thorough harrowing and re-seeding, with a dressing of lime or ashes, we have known operate favorably. These beds of peat or moss, are good ingredients in making compost, using about one load of stable manure to two loads of decayed vegetable matter, and allowing the whole to ferment together.

MOLD.—This is the name given to those minute fungi or plants, which as parasites appear in masses upon organic bodies. They appear to be favored in their production and growth, by a damp atmosphere, and perhaps by a diminution of light; consequently the appearance of mold is more common in wet cloudy weather, and in damp dark cellars or caverns, than in other times and places. There are many vegetable productions it attacks and greatly injures; and living animals, as in the case of the silkworm, are sometimes attacked and destroyed by these fungi. The celebrated Stilton cheeses, and those produced in Switzerland, owe their peculiar flavor to a kind of mold; and when it does not seem disposed to attack all the cheeses of a dairy, those that would remain free, are inoculated by inserting pieces from cheeses where it has already developed itself. Perfect dryness, or absence of all moisture, is incompatible with the growth of mold.

MOW-BURNT.—When hay not properly cured is packed in large masses in stacks, or more frequently in close bays or barns, a fermentation or heating takes place, which at times progresses so far as to give the hay a black or charred appearance, and entirely destroys its value as food for animals. If moisture was present, or was furnished in sufficient quantities in these cases, the fermentation would end in the conversion of the hay into muck or manure; but as it is not, the hay suffers as from a dry or smothered heat, equally fatal to its nutritive properties. Hay so injured is termed mow-burnt, and can never be useful as fodder. We have seen in a barn where a large mow of clover hay, put in too green, was closely packed away, the whole central part of some ten or fifteen feet in diameter, black, brittle, and apparently as effectually charred, as if the conversion had taken place in a coalpit, and wood instead of clover had been the material employed. But there is a vast deal of hay where the heat is not so great, and where it is only black, moldy, or discolored, and such hay is frequently fed to horses or cattle. This is wretched policy; as they not only starve on such food, but contract diseases that are not unfrequently fatal, from being compelled to eat it. It is not too much to say that one-half of the clover hay made in the country, is put up without being sufficiently cured, and becomes moldy or mow-burnt in consequence. The only use which such hay is fit for, is to litter yards, and by absorbing, prevent the escape of the fluid manures.

MULBERRY.—The mulberry is a well known tree, (one not likely to be soon forgotten by many in the Uni-

ted States,) some varieties of which, the black particularly, are cultivated for fruit, but more generally the tree is grown for the sake of its leaves, which are used for feeding silkworms, wherever that article is produced. Of the kinds cultivated for the sake of the leaves, the white has been the most common; but within a few years other varieties of quicker growth and more abundant foliage have been introduced, which have in a measure superseded the first kinds. One of the kinds most valued at the present time, is the Chinese mulberry, or the *Morus multicaulis*; the growth of which is very rapid, and the facilities for propagating which by means of cuttings or layers, and the great mass of foliage produced, has rendered it a great favorite with silk growers. This tree in its introduction and spread in this country, affords one of the most instructive lessons, as to the extent to which speculation may spread, and the actual monomania it may produce, to be found in the history of any people. The whole nation was to become rich by growing mulberry trees, and thousands invested their last dollar in purchasing trees at the rate of 75 to 100 dollars per hundred, trees of only one year's growth; and in many instances they were sold at from 10 to 50 cents per bud, making the prices truly enormous. This was done in the full certainty that the tree had no value except for silk, and that the preparations for the production of silk, bore not the least proportion to the increase of the mulberry. As was foreseen by every reflecting mind, the supply soon exceeded the demand, or rather there was no demand whatever; the mulberry bubble burst, and its disappearance involved the ruin of thousands. For silk, the mulberry is invaluable, and as the silk culture will eventually become important, as experience teaches the best processes, so its introduction to the country, may be considered as an important contribution to its resources. The mulberry may be multiplied by the root, by cuttings, or by layers, and one of the easiest methods of feeding it to the silkworm, is found to be to mow the shoots close to the ground annually, and give the foliage to the worm in that form. Where mulberries are kept for fruit, the pruning should be done at midwinter, as summer pruning is found to be injurious to this tree. It will be better too, to take layers or cuttings from trees known to produce fruit, where trees for fruit are wanted, as when grown from seeds, a considerable portion will be always barren, or unproductive of fruit.

MULE.—This is the name generally given to the offspring produced by the sexual union of the jackass and the mare; an animal capable of copulation, but not of begetting or producing offspring. Instances are on record, however, in which hybrids, or animals resulting from a cross of distinct species, have produced offspring, but in the opinion of Hunter, they were the result of monstrosities, and only formed the exceptions to the general rule. The mule proper, possesses many excellent qualities, and is of singular utility as a beast for labor, in countries where the horse is of little value. Mr. Darwin, in his "Narrative of the Surveying voyages of H. M. ships Adventure and Beagle," in the notes of the journey across the Cordilleras, thus speaks of the mule, after giving some curious proofs of its sagacity and value as a beast of burden: "The mule always appears to me a most surprising animal. That a hybrid should possess more reason, memory, obstinacy, social affection, and powers of muscular endurance than either of its parents, seems to indicate that art here, has out-mastered nature." Mules or hybrids among plants, are confined within narrow limits, though as in the case of animals, they do sometimes occur. Thus hybrids sometimes show themselves among strawberries, and some of the best kinds are supposed to have such an origin. Where, however, they appear among plants of the same species, it would be as well perhaps to consider them a mere cross, and not as a proper hybrid. Mr. Knight could never make the Morello breed with the common cherry, and Prof. Lindley has in vain endeavored to mule the currant and gooseberry; and it is well known we have no fruit produced between the apple and the pear, or the blackberry with the raspberry. Mr. Herbert gives some curious instances of mules obtained between plants of distinct genera, as crossing the pea with the bean, the cabbage with the horse radish, &c. But though muling of plants may be difficult, cross breeding is easy, and to this fact may be traced the great number of varieties existing of any one species of fruit. The difficulty of muling, and the inability of hybrids to perpetuate their race, appears to be the result of a wise law of nature, intended to preserve identity of races, and prevent the universal mixing and confusion which would otherwise have resulted from a confounding or loss of individual species.

MURRAIN.—A disease among cattle, generally considered contagious, and where it appears, is usually fatal. There can be no doubt that many diseases widely different from each other, have received the name of murrain; but the disease itself is marked with a greater variety than almost any other, assuming so malignant a form. There is usually a cough perhaps a week before any other symptom appears, then heaving of the flanks, with black and fetid feces, tenderness over the loins, and coldness of the horn, tumors and boils appear, and if the animal has strength to allow these to suppurate and heal, there is a chance of recovery; but if they become stationary, or disappear, death is the result. In the murrain of this country, there is usually discharges of blood or bloody matter, with a holding down of the head, moaning, restlessness, and staggering when attempting to walk. Bleeding has been recommended in the first stages; while the peculiar diarrhea that accompanies it, must be met by astringents and tonics. A wash of chloride of lime is good for the ulcers, but when these assume the

gangrenous form, decomposition takes place so rapidly that there is little hope for curative efforts, and indeed they produce little effect. In some instances where murrain has appeared at the west, herds of cattle have been saved, by keeping a trough containing a mixture of lime and salt, one-third of the former to two of the latter, where the animals could have free access to them. The terrible epidemics which at different times from the earliest ages, have ravished the old world, destroying in many cases, almost the entire stock of cattle, are supposed to have been the murrain, or some of its kindred diseases. It has always been remarked that the murrain makes its appearance on wet farms oftener than on dry ones, and that hot dry seasons are the ones in which it most prevails.

MUSCLE.—Muscle constitutes the most nutritive and valuable part of animal food. It is an aggregate of small contractile fibres, which appear to be formed of minute globules, and partially formed as it were in bundles. What is called lean meat is muscle, and on the quality and disposition of this, much of the value of animals is depending. The best kinds of beef and mutton are those in which the lean and fat are mixed, or marbled; if the fat and the lean are too distinct from each other, it is a decided fault. The condition of the muscle is much influenced by the health of the animal, and though too little attention is paid to this matter generally, animal food from unsound animals is most deleterious to the human constitution. Selling diseased meat in the markets, is a crime that deserves the severest condemnation.

MUSEUM.—The attention of the public has of late been drawn to the necessity, and to the benefit of agricultural museums, or places in which all the valuable and all the curious productions of the soil might be represented by specimens as far as possible. Not only the products of the soil, but samples of the soil itself, where it has been distinguished for any remarkable qualities or crops, or can be considered a fair specimen of any peculiar class. Geological specimens are not out of place in a museum of this kind, as illustrating the position of strata, their character, and their influence in the formation of soils. Implements of all kinds, seeds, specimens of timber, plants, &c. grains, portraits of animals illustrating the different breeds, &c. &c. should be found in a museum, in short every thing that can enlighten and instruct the farmer, and advance the progress of agriculture, will find its appropriate place in such a collection. We trust the collection of the National Institute at Washington, will ere long become a Museum to which we as Americans can refer with pride and pleasure, and gratifying beginnings have been made in other quarters, particularly by the State Agricultural Society of New-York.

MUSHROOM.—Puff balls, toad stools, &c., belong to the same class of plants that produces the edible mushroom; and as some of these fungi are very poisonous, and liable to be mistaken for the true article, too much caution cannot be exercised by mushroom eaters in the choice of those to be used. The following description by Prof. Johnston, will aid the inexperienced in coming to a correct decision: "The edible mushroom (*Agaricus campestris*) is nearly inodorous, but its flavor is grateful. The crown is at first hemispherical, then convex, and at last flat; fleshy; from two to five inches broad; white or very light brown; scales soft and fibrous; gills pink, changing to fuscous black; the flesh when divided usually changes to a reddish hue." It is a natural product of decomposing matter, but large quantities are produced artificially, in beds prepared for the purpose, into which the seed, or spawn as it is termed, is introduced and germinated by moisture and heat. For the method of culture, reference must be had to works on gardening.

MUTTON.—Mutton is the flesh of sheep; and perhaps in no one point has the skill of the breeder of animals been more marked, than in that of producing breeds of sheep, in which the greatest amount of flesh, and the smallest quantity of offal, seems to have reached a point beyond which progress will be difficult. The quality of mutton is greatly depending on the age of the animal, and the mode of feeding. Its general use in England, has caused great attention to producing it of a superior quality, and the success has been unrivaled elsewhere. To be first rate mutton, the sheep should not be less than five years old, and as a general rule it may be said the older the mutton the finer the flavor, in this respect differing from most other meats. The flesh of mutton five or six years old will be firm, dark colored, and when cooked full of the richest gravy, while at two or three, the flesh will be comparatively light colored, and be soft or flabby. As a general rule wether mutton is superior to that of ewes of the same age, though connoisseurs in this flesh assert that a maiden or spayed ewe of five years old, produces mutton preferable to any other. The South Downs are highly prized for mutton, and their reputation in this respect abroad, has been well sustained here.

MYRTLE WAX.—This is the product of the bush called the candleberry myrtle, or bayberry bush, and is found in most parts of the United States. It is produced on the seeds of the plants, and is collected by gathering them, and boiling them in water. The size of the shrub varies from four to eighteen feet, according to the climate. The wax is used in various diseases as a valuable medicine, but its principal use is to mix with tallow, and other animal oils, in the formation of candles. To these it gives firmness, burns freely, and diffuses a fine odor while burning. There are many parts of the United States where it is found so abundantly, that it is believed it might be made a profitable employment for children, and those not otherwise in business, to gather the berries, and fit the wax for market. The sale at home is certain, and the demand abroad constant.

Original Papers from Contributors.

PURCHASE OF FARM LANDS.

Hints to those who intend to buy land with the view of cultivating it to gain a livelihood.

Messrs. GAYLORD & TUCKER.—What I desire to suggest on this subject does not relate to the quality of the land, which should be an important subject of examination to every purchaser, nor of its situation in regard to health, nor to the facility of getting to a good market for the sale of the crops raised upon it,—considerations which every prudent man should regard in making his purchase; but to the *quantity* of land, and the circumstances which should regulate it. Most young men who have not been engaged in farming, are desirous of holding "broad lands," and are apt to invest all their funds in land, without reflecting that the land is only *one* of the materials necessary to the profitable production of crops. Agricultural tools and implements, houses, stock and fertilizing substances, seed and labor, are as indispensable as the land itself. Without a moderate surplus capital to obtain these after the land is bought, too much land has been bought whether it be fifty acres or five hundred. In England this is well understood, and should be on this side of the Atlantic. Even tenants there do not take a lease without ascertaining how much capital will be required to farm, with a reasonable expectation of profit, on rented land. Most of the embarrassments and failures of young farmers in this country, may be traced to this radical error; they buy more land than they have the means or the knowledge to render profitable. Emigrants at the west often lay out their last dollar in land; go in debt for tools, buildings, stock and even provisions; retain nothing to fall back on, depending on their crops beneath the earth and in the skies, and subject besides to storms, tempests, blights and insects, to pay off all. A single crop fails, and what then? Their land has to be sold for less, perhaps much less than it cost, the capital is sunk, and the poor miscalculating farmer is ruined. Another error is to depend too much on one kind of production—making it the staple. When several kinds of crops, such as grain, grass and roots are cultivated, there is less danger of a total failure. The weather may suit one kind, and not another so well. If the season should happen to be very warm and rather dry, the Indian corn will come in admirably; if it should be wet and warm, the grass will be abundant; if cool and dry, the wheat will yield well; if cool and moist, the potatoes will bring a good crop. But a reasonable variety of staples has relation to the market as well as to the weather—to the sale as well as to the production. Corn or wheat may sell high, and grass, hay and roots low, or the contrary. It might happen that the price of one staple may be ruinously low. But it will rarely happen that the prices of several at the same time and through the season, will continue so. Those too low in price for profitable sale, may be, if of a perishable nature, used at home, or converted into fat stock if they bear a better price, and more of the higher priced articles sold which would have otherwise been partly consumed on the farm, the lower priced now supplying their place. Variety of crops has also an intimate connexion with the improvement of the soil, by introducing a rotation in the cultivation of the land. Without rotation, enormous quantities of fertilizing matter must be given to the fields, or they will inevitably become sterile. The richest lands constantly cultivated in plants of the same species, or even genus, sooner or later yield up all the food in the soil appropriate to such plants. Good lands with a proper rotation of crops, require much less foreign aid—the previous crops leaving on the surface and in the soil, supplies of food for the succeeding ones. This is so especially true of the grasses and trefoil plants, among which red clover is perhaps the most valuable, that to cover the fields not in summer cultivation with them, is equivalent to a dressing of manure; while they at the same time yield for grazing, soiling or hay, a reasonably profitable crop. While the collection, preservation and application of fertilizing substances should by no means be neglected, the grasses and trefoils afford the least expensive means of fertilizing the soil. The labor, time, and expense of hauling and scattering, is all saved. The seed, the seasons, and the soil do it all. To keep the fields then not in summer cultivated crops covered with them, is at the basis of good farming. Virgil has said nothing wiser in his Georgics, and there is much wisdom there too, than "praise a large farm but cultivate a small one," and more especially if the owner has not an ample surplus capital after purchasing his farm, to enclose, stock, manure and cultivate it well. We incline to think that in nine cases out of ten, the man who purchases one hundred and sixty acres of arable land, would have succeeded better as a farmer, if he had bought only eighty, and applied the surplus otherwise, as indicated above. It is more economical and profitable to purchase and cultivate one acre of land which we make produce 75 bushels of corn or 30 of wheat, than three acres which we make produce only the same quantity. There is less fencing, less expense of cultivation and manuring, less expense in gathering and securing the crop.

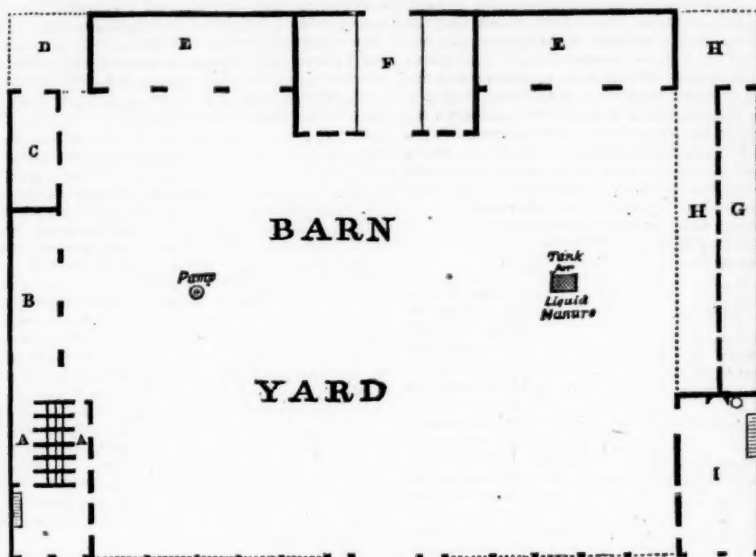
Frankfort, Ky., Oct. 17, 1843.

JOHN LEWIS.

WHEN the leisure evening hour is employed by a family in reading the page of instruction, there grows up insensibly in the younger members, a love of home—a sentiment incompatible with some of the worst vices, and favorable to all the virtues.



Elevation of Farm Buildings.—(Fig. 96.)



Ground Plan of Farm Buildings.—(Fig. 97.)

FARM BUILDINGS.

In the first number of our present vol. we inserted the plan of a genteel Farm House, designed by T. M. NIVEN, Esq. of Newburgh. At our request, Mr. N. furnished the annexed plans of grounds, out-buildings, &c. to accompany the designs for the house, and the whole were published together, in the Transactions of the State Ag. Society.

EXPLANATIONS.—A. A.—Horse stable, with hay and oat loft above and wagon house in front.

B.—Open shed with fowl house over it.

C.—Shed for calves with small yard (D.) attached.

E. E.—Hay houses, with accommodation for cattle underneath.

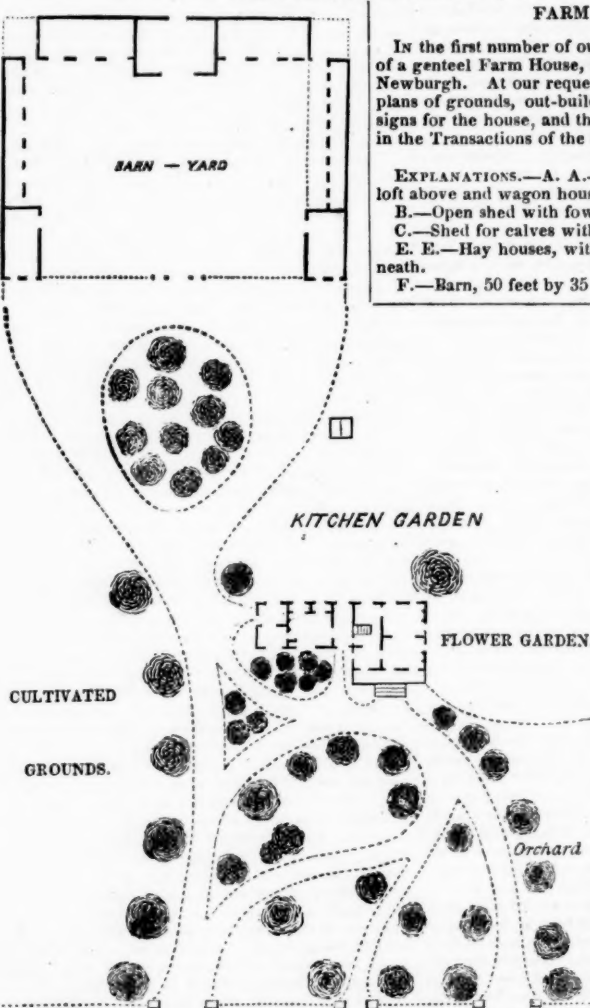
F.—Barn, 50 feet by 35 feet.

G.—Piggery, with enclosure, (H.) with gallery above opening from granary, by which the feed may be distributed.

I.—Receptacle for farming implements, with granary and work shop above, also having accommodation for boiling hog feed.

The number of windows in front of barn may seem strange to those who have not reflected upon the subject, but I am persuaded that ventilation in buildings, containing large masses of grain in the straw and hay, is of the first importance. In all these windows I would have coarse fixed blinds. It also adds materially to the looks of the building.

CORNSTALKS VERSUS CORN.—The editor of the Mass. Plowman says: "You must expect cornstalks in proportion, if you make the hills rich, while the spaces between them remain poor. If your object is cornstalks, put your manure in the hill, if corn is your aim, place the manure where the roots may find some of it in the latter part of summer." This is sound doctrine. Where the whole soil is rich, a little active manure in the hill serves to give the corn a good start in the spring, and may be admissible; but if the soil is poor, manuring in the hill may give a few stalks, but will afford very little corn. Spread your manure for a good crop.



Plan of Buildings and Grounds.—(Fig. 98.)

HE that has in the eye of the world no comforts, can create them for himself, and extract enjoyment out of the hardest fortune.

CHINESE MODE OF CULTIVATING COTTON.

MESSRS. GAYLORD & TUCKER.—It is only now that I have met with Dr. Cloud's account of his successful cultivation of cotton. It has excited many doubts, but I trust what I shall communicate to you will remove some of these doubts, and go far to substantiate the opinion of the Doctor. Thirty years ago I was myself making an experiment in cotton, on Salsett, near Bombay; I wrote the following letter at that time, and copy it *verbatim* from my book of notes. The copy of a letter to Mr. Brown of Angericandy, Malabar:

Although the principal part of your estate is a plantation of pepper, I know you attend to the cultivation of cotton. As I have been trying this cultivation as practiced in China, the success of which I have not the least doubt, although the harvest of my crop is not yet made, if circumstances should prevent your following the same mode, you will at least be pleased with the description of it.

The earth after being very deeply plowed, is made into beds three feet broad and a foot high; mine this year are not above six inches high. A small path or gutter is left between these beds a foot broad. The seed which I used is the common Guzerat, an annual; the botanists call it, I believe, *Cossipium herbaceum*. It is put into a basket and made to swell, that the best seeds only may be selected. Four seeds are put together in one hole. These holes are two feet distant from each other. They are manured three times during their growth, and at each time well flooded with water. The manure that I used was oil cake, made liquid in a tub standing in the corner of a field. It is poured in the center of four holes; the second time it is poured between two holes, and on the third time when the plant is well grown and on the point of flowering, the manure is put to the root. Irrigation and manuring is performed in the afternoon. When the plant is about to throw out its flowers, about an inch of the center root is cut off to make it throw out lateral branches.

As to the season of planting, I think that adopted in Guzerat is best. The Chinese were three weeks or a month later; they did not plant until the month of September. I wish I could inform you correctly as to the produce, but I can only judge from the appearance of the plant, that the returns of this kind of cultivation under ordinary circumstances, will not be very short of what the Chinese say it is. The Chinese measure of ground is as near as can be, half an English acre. This is said by them to produce one thousand pounds of cotton, free of seed. If after all my experiment should not afford this amount, I should not be discouraged, as there are many circumstances attending this experiment unfavorable. The seed is not so good as that of China; the season was unfavorable, the Chinese being misled by the difference between this climate and that of their own country; the soil was not properly worked, and lastly our beds were by no means sufficiently raised.

I dare say you will be astonished at this amount of produce, but really there is hardly any limit to the returns of agriculture when the soil is skilfully cultivated and highly manured. The difference in the cultivation of sugar cane which is well watered and manured, and that cultivated as it commonly is in the West Indies, is at least six times. The Chinese say their seed is much larger than that which I provided them with, but this is merely the effect of cultivation. You may perhaps know that the cotton which the Chinese cultivate, sells as high as seventeen Taels a Picue, (a shilling a pound.)

We were somewhat embarrassed about the proper soil; the deepest is of course the best—even such valleys as are proper for rice. They of course require to be well drained, which the Chinese understand incomparably. Their main drains are separated from each other fifty feet, and the gutters between the beds make the soil perfectly dry, even during the torrents of the monsoon. Our land of this description being infested with crabs, obliged us to seek a more elevated spot. The plants are watered every ten or fifteen days, and the manure is two tons to an English acre. I have mentioned above that the seeds of the cotton are put into a basket to swell; for this purpose they use warm water, and as soon as the radical makes its appearance the seeds are deposited in the earth and a little ashes put over them.

Stockbridge, Mass., Nov. 1, 1843. L. ASHBURNER.

INQUIRIES ABOUT VIRGINIA.

We hope some of our friends in Virginia, will furnish us with answers to the annexed queries:

MESSRS. GAYLORD & TUCKER.—A number of persons, (and many of them your subscribers,) residing in Orange county, state of New-York, have had their minds turned towards Virginia, to settle as farmers, in consequence of the cheapness of the land and the healthiness of the climate, and they wish information from some of your subscribers in that state, as to the price of good land?

What section of the country is most desirable?

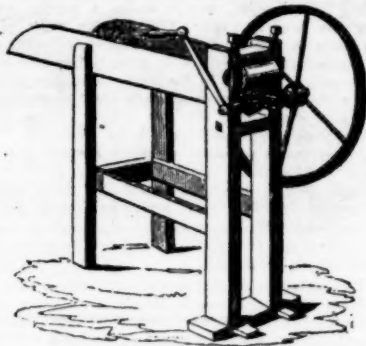
How they are situated for schools and churches?

Would it be worth while to take farming tools, cows, oxen, horses, hogs, wagons and furniture?

Many farmers from Westchester and Dutchess counties in this state, have removed to Virginia within a few years, and these gentlemen can give us the very information we want, and we hope some of them will take the trouble to answer us through your columns.

Nov. 22, 1843. ORANGE COUNTY.

The true springs of action sometimes lie hidden from a man's own view.



Hovey's Straw Cutter.—(Fig. 99.)

IMPLEMENTS OF HUSBANDRY.—No. 4.*

It was only about ten or twelve years ago that the farmers first seriously directed their attention to the economy of cutting hay and straw for their stock; and if there was any one reason more than another that prevented the adoption, it was the slow and tedious operation, and the insufficiency of the machines then in use. To be sure there was Safford's machine, with two knives on the arms of the balance wheel, which was a great improvement on the old fashioned Dutch "Jug box;" but still the labor was great, and the operation not so speedy as desired. After this period, Green's machine was invented, and the writer claims the credit, if there is any, of introducing it to the public; since which, they have found their way into every state in the Union, Canada, Scotland and England.

A description of one of these machines was sent, in 1837, from Canada to the secretary of the Highland Agricultural Society in Scotland, and called the "Canadian Chaff-cutter," by Mr. Fergusson, who pronounced it "the easiest and most efficient cutter he ever met with—a first rate machine." The communication was laid before the committee on machinery, who, after making a machine according to the description, and sufficiently testing its powers, reported that they found "it to bear out all that was said of it by Mr. Fergusson;" that "it is ascertained that it will cut three times more than the best of the common sort, and with less force;" and that "one person driving the machine will cut with ease five hundred weight of hay or straw in an hour." This was a high compliment to our ingenious countryman, Mr. Green, but a deserving one. The notice, with a pictorial representation of the machine, was published in the Society's papers.

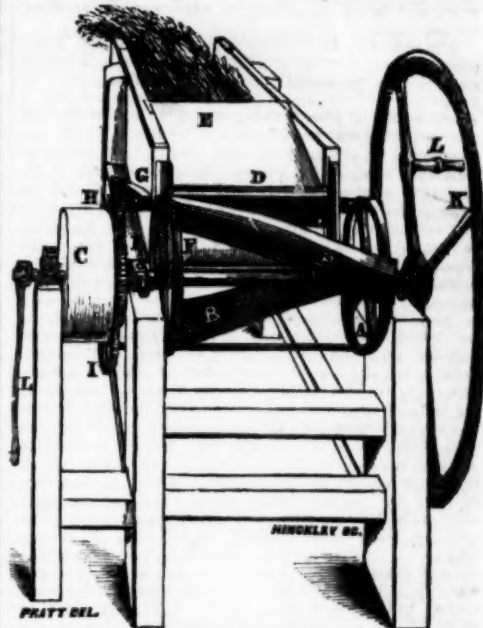
In the December number of the Farmer's Magazine, published in London, I find the following notice of this machine, taken from the report of the exhibition of implements at the meeting in July, 1842, and published in the Journal of the Royal Agricultural Society:

"A premium of £3 was adjudged to Mr. James Richmond of Salford, for a small chaff engine, of a novel and peculiar kind, patented by Mr. North, an American. The action of this machine is perfectly continuous, the cut being produced by the pressure of straight edged knives, fixed at equal distances asunder, on a bottom roller, in the direction of its length, and working against an upper roller composed of a mixture of lead and zinc, between which the straw or hay is drawn in a regular stream. In principle, this machine may be considered to be diametrically opposed to that which has hitherto guided mechanics in the construction of chaff cutters; but as it appeared to be worked with remarkable ease, and to cut with a cleanness never yet excelled, or perhaps equalled, it was deemed to be entitled to reward, and to the favorable notice of the Society. At present, the maker seems to have limited the dimensions of the machine to suit the demands of small consumers; experience will determine whether the same principle can be extended to meet the wants of the large farmer, and whether, in respect to durability, it equals the better known machines."

The great demand and rapid sales of these machines in this country, have aroused the mighty genius of our countrymen, and their powers have been tasked to supersede it; and so far, with the exception of Hovey's, which I think is an improvement on Green's, no implement has yet been invented that will cut hay and straw as fast, with the same ease and power. Hovey's, which carried the Society's first premium at the Fair held in September last at Albany, competing with fifteen different machines, among which was Green's, differs from the former in having the knives set spirally in the cylinder, which cuts equally and continuously, and only a part of the knife in operation, thereby lessening the power and strain of the machine. The writer has one of these machines in use, and can speak from experience.

The machine exhibited by Messrs. Botts & Burfoot of Richmond, Va., at the Fair, has claims which should not be overlooked, and appears to be a machine long sought for, viz: that will cut hay, straw and cornstalks. It received some damage in the passage, and was not in good order when exhibited, or the committee might have placed it among the first. The best and most sub-

* This communication, received at the time of its date, was mislaid, which has delayed its insertion till this time.



Cylindrical Straw Cutter.—(Fig. 100.)

Manufactured by R. Sinclair, Jr. & Co., Baltimore. The prices of this machine are as follows: 20 inch cylinder, for horse or steam power, capable of cutting 1,500 or 2,000 bushels per day, \$75. 14 inch, for manual or horse power, \$45. 11 inch, for manual power, \$30.

stantial evidence of the estimation in which it is held, is the fact, that the proprietors say they "have sold upwards of a thousand dollars worth of our straw cutters in the northern market, notwithstanding the hard times, since the first of October." A few of these machines are on sale at the agricultural store of G. Freeborn, Front-street, New-York.

The next machines deserving notice, which were exhibited at the Fair in September last, were those exhibited by Messrs. R. Sinclair, Jr. & Co. of Baltimore, for horse power. These machines have been long in use at the south, and stand very high, as a strong and powerful machine. The writer purchased one of them and sent to a friend in South Carolina, who was well pleased and speaks in high commendation of it.

The other machines exhibited, some of which were specimens of great ingenuity and superior workmanship, for which the inventors deserve great credit, and it is hoped they will receive their reward in the great sales of their implements.

C. N. BEMENT.

Three Hills Farm, March, 1843.

HASTY REMARKS

On the Geography of Plants and Birds—on Rearing Poultry—Use made of Turkeys by Tobacco Planters—Making Capons, &c. &c., suggested by the last no. of the Cultivator.

I do not know how far it is true that "the cultivated plants yield the greatest products near the northernmost limit in which they will grow," but the question does, as you say, "afford an interesting topic for discussion in journals devoted to agriculture and natural science."

In general, the latitude of states lying south of the Delaware is considered most congenial to the growth of the Indian corn, yet we have accounts of very heavy crops in a greater number of instances, in corn-buying New-England than in the states south of the line above designated. This may, and no doubt does, in a measure result from the more minute attention and painstaking habit of the New-Englander—more manure and better tillage. According to my observation, the peach region of the United States lies between Virginia and the north side of New-Jersey, say on the tide waters of the Chesapeake and the Delaware, and we find it growing most abundantly now in the state of Delaware, almost its northernmost limit, as a crop. But what I was going to observe is the remarkable fact in bird-ology, analogous to the one assumed as true in vegetable physiology, that the mocking bird, unequalled for his powers of song by any other of the feathered creation, is not met with, that I am aware of, in any numbers many miles north of the Delaware river. It is considered a southern bird, yet I have never seen as many congregated in such a narrow space any where south of it, as exactly on the Delaware, "his northernmost limit." Who that can carry back his remembrance to by-gone times, when we traveled across the isthmus from Frenchtown to Newcastle, taking three to four hours to go the twelve or fourteen miles, and arriving suffocated with dust and overcome with weariness—who of these does not remember the thorn hedges, redolent of the music of this noble bird, as we used to drive into Newcastle between daylight and sunrise? The thorn bushes appeared to be alive with them, as if chaunting a valedictory to the traveler as he passed the confines of their abiding. I never saw as many anywhere else as about Newcastle and Salem, on the Dela-

ware, and do not remember to have seen any north of those points.

You would do a service to your readers if you could persuade your correspondents to give some clue whereby they may be approached, in case of need, in person or by letter. For example: if I knew his whereabouts, I would write to your correspondent, K. L., in the last number, in great confidence that he would kindly answer some interrogatories about turkeys. He refers to a difficulty arising from the well known propensity of the turkey to steal away slyly and unobserved to lay its eggs in the most sequestered spot, making it very difficult and tedious to watch her to her nest, or to find it by the closest search. This is a habit which has come down with them, as they have with some domesticated animals, from their "state of nature," and has not been overcome by domestication; and K. L. very usefully suggests that the difficulty may be obviated by the practice which he recommends, of feeding them in the most familiar way, thus inspiring confidence, and leading them to lay about the barn and stables. But if I am not mistaken, the old woman who had charge of the poultry in the county where I was "raised," had recourse to some infallible digitalis examination, whereby she could always tell in the morning, before the turkeys were allowed to go abroad, precisely those which would lay in the course of the morning; the rest were discharged for the day, while these were kept up until they made their ovarious deposits, when they too, about mid day, were turned abroad. In this way, not an egg was lost. On the contrary, all were gathered up, marked with firecoal, with the day of the month, and put away in tow or wool in the "egg basket," in a snug closet; and when a turkey showed signs of wishing to sit or set, in the language of housewifery, the regular number of eggs of proper age were given to her, and scarcely an egg failed to hatch. Is there any objection to this system, or any one more convenient and economical that can be substituted for it? Will K. L. allow me to inquire what number of males he would recommend for a given number of females? How long should hens be kept at breeding, and what does he consider the best food for young turkeys, when first hatched?

Many object to rearing turkeys, as being very mischievous and destructive to vegetables and grain; but in the tobacco region they are considered indispensable for their agency in destroying the worm, that greatest obstacle, even worse than the fly, which destroys the plant in the bed, to the growth of that popular weed, so detestable in the estimation of my friend, Col. Stone of the Commercial Advertiser. In Maryland, the large planters, besides rearing all they can, send round among those who are more successful, and who have less use for them, and buy up large "gangs" of young turkeys, at from 37½ to 50 cents each, when they are not larger or as large as grown pheasants, expressly to assist in "keeping down the worms." As soon as the "dew is off," the young negroes drive these gangs of turkeys regularly over the tobacco field, where each one takes his row, and it is curious to see how quickly they can spy out the smallest worm, and what numbers they will kill. As the heat of the day comes on, they are driven into some neighboring shade, and fed with a little grain, to prevent the worms from making them sick, and to keep them from being surfeited with too much of a good thing. In the afternoon they make another campaign, and without an army of turkeys, the army of worms would destroy the hopes of the planter. After the tobacco has been housed, he allows his feathered auxiliaries to take the run of the corn field and the hog pen. In this way they get their growth and become fat, when all except the breeding stock reserved for the next year, become the perquisite or pin money of the good housewife, who sends them, as "fat as butter," to the Washington market, where they average about \$1 to the boarding house keepers, and are in their turn devoured by members of Congress.

Has K. L. considered whether poultry might not be "hatched out" with greater vigor of constitution, and with more certainty of growing off at once, and living and doing well, by paying more strict attention to the quality of food given to breeding fowls, for on the nature of the food it is admitted the quality of the egg greatly depends? "When scantily fed, they will frequently lay," says Mr. R. L. Allen, "but from a deficiency of nutriment, the egg will be meagre and watery, and possess but a small portion of the nutritious qualities peculiar to them."

We know that plants do best, and yield the largest crops, which being previously well manured, grow right off without being stunned, and do better than they can be made to do afterwards, by the most lavish application of manure, if their existence has once commenced and their roots been feebly stricken in a barren soil. Under all these views of the case, may we not conclude that attention should begin with giving a sufficiency of the best food to improve the quality of the egg? Some may regard this whole subject as unworthy of a man's attention, contending that such matters should be left to old women; and I think it probable that in such hands they are likely to be, practically, better managed. Dr. Rush was once asked by a student, what per cent he thought had been added to the period of human life by the skill of practitioners of medicine; and he answered, "If by practitioners of medicine, you mean to include old women and nurses, I think the increase has been very considerable, but if you exclude them, very little." Let me but interrogate some old women whom I knew when a boy, on the matters under discussion, and the result

for a young housekeeper, would make a perfect catechism for the poultry yard. The woman who gives practical hints on topics like this, connected with our every day comforts, is entitled to more honor than one-half the brawling patriots in the land. She may be regarded as a real patriot, who teaches how two turkeys may be reared where only one was reared before. Nor is the art of stuffing and cooking it to be despised. For my part, I profess to entertain a certain respect for the memory of that knight of the gridiron who, as Madame Seveigne tells us, fell upon his sword in a fit of indignation, because the fish did not arrive in time to fill up the programme of the dinner for his royal master, Louis XIV. Voluptuous age! distinguished for its great immoralities and its great men. J. S. SKINNER.

P. S. The only person that I ever saw who could caponize a barn door fowl, was an old negro woman, a slave of my grandmother. To the scandal of our domestic management, no one knows how to practice the operation. I have prevailed on medical students to attempt it, but they have not succeeded. The directions which have been given are too complicated and abstruse to be executed. The very terms used, and the preparations and implements described, would seem to call for Sir Astley Cooper to understand and carry them out. Yet those who have, in Paris, been accustomed to eating fat capons, will tell you that there is between them and the uncaponized fowl, as much difference as we may suppose to be between the mutton of a fine South Down wether, and that of an old ram. J. S. S.

Washington, Nov. 5, 1843.

"BORROWING."

MESSENGERS. EDITORS—I discover that you generously lend your pages to the inquiries and suggestions of your correspondents, and for once I will state my case, and submissively ask your commiseration and aid. Borrowing is the weighty cause of my present trials. I began a few years ago to gather round me a few farming implements, so as to be on a small scale somewhat independent. I endeavored to get good tools, and all I needed for any particular kind of work. But I soon found others needed, but did not buy the same tools. A green sward plow was bought, with no expectation of breaking up more than four acres a year. I chose to have one, rather than get plowing done badly by the job. But a neighbor, and another and another wished to use it, each one more than I had occasion to use it. I thought a wheel barrow convenient and bought one. My neighbors in conjunction used it a week, where I had occasion to use it a day. I bought as many hoes as I ever employed hands. My neighbors each owned one perhaps, and found in planting a few choice hoes near at hand quite convenient, and when the corners were broken off they returned them, saying "they struck the hoe into a chip and it broke off;" as much as to say no violent measures were taken to mar a nice article. All was fair usage of the tool. A forcible argument in favor of getting thick clumsy tools in future. I bought an axletree and box for a truck cart, fitting my buggy wheels to them. Soon one wants the cart to drive in his potatoes, another to break his coat to the harness, &c. I have endeavored to keep a good knot-maul, but I have had two at least entirely used up by borrowers. I have two wagon boxes for a two horse wagon; one for a reserve, and one for common use. My best box is well worn, and passes for an old box without my having used it at all, or scarcely any. One wants it to bring a load of sand eight or ten miles; another wants my wagon and "green box," to ride to court with his family, or to meeting, or to bring a load of shelled corn from a neighboring town. And so, unless I begin "to make a rout," it will soon go the way of all wood ere long. I have a little orchard, and I made me a ladder for grafting, and for gathering fruit; but I must make a ladder every little while till the neighbors are all supplied, or it will take me longer to hunt up the borrowed ones than to get the apples by climbing. I have a supply of pitchforks and rakes one year, but near the close of haying they are borrowed and not returned. The next year where are they? I don't know. I mean to keep a set of augers. I have a full set when they are all at home. But to-night I wished and needed to bore a hole just so large and not smaller; but I remembered a neighbor had borrowed it in my absence, and had recently told me he would return it soon. I once bought me a valuable saddle. I soon found I had to supply five or six neighbors with the use of my saddle for all their horseback riding, which was in each case far more than mine. But I "growled" a little about it, and there are more saddles in town now. I should like to own a sub-soil plow. Methinks I shall be safe in this, for few of the borrowing class will want to use such a tool. I once employed two hands to do some scraping for me. When all things were ready to hitch on to the scraper, lo! a neighbor had borrowed or taken my chain in my absence, with a familiar kind of freedom not unusual in this region, intending to speak of it afterwards. All the wheels were stopped for half an hour. I had a couple of bar posts made the past season and conveyed to a distant field, and left as it happened, in the wagon, as it was Saturday, and they were not designed for immediate use. A neighbor wanted the wagon to go to meeting. One bar post is broken or split in unloading them for the occasion; the other is now gone—doubtless borrowed.

I find poor encouragement for making improvements in my implements and products. My wheat was better and cleaner than my neighbors—not that I wish to boast. One wants to swap for seed wheat: for says he, "the

heads of your wheat were twice as long as mine;" another wishes to borrow, and let on this part of my plaint, a neighbor came to-day to borrow or swap some straw; mine was much better than his for making cider. Now I do not object to borrowing altogether; it is quite important in neighborhoods; but there are proper limits to most good things. If you think there are other neighborhoods where borrowing is too common, I should like well enough to have you publish the above statements. There is not much danger of their creating heart burning in this vicinity, as the persons who may think the allusions personal, will have to borrow your paper to read them. Q.

We give place to the complaints of our correspondent, not because there is much hope of effecting a reformation among the class of borrowers, but because there are many others "afflicted and tormented." In the same way, and, alas, according to the old adage, misery loves company, there may be some consolation to all concerned to know they do not suffer alone. It is vexatious, to hear a man decrying all improved implements, and yet, when you have obtained at much cost, and more trouble, some few for yourself, to find him the foremost in borrowing and wearing them out, without so much as a "thank you," or "by your leave." But this is the penalty all must pay who are so presumptuous as to be in advance of their neighbors, and should be borne with all possible philosophy and resignation.

THE VINEYARD.

A Comparative View of some Native Grape Vines, and other matters pertaining to Wine making, and the "American System," in the Brinckleyville Vineyards.

MESSENGERS. GAYLORD & TUCKER—A gentleman from S. Carolina made some inquiries of me lately, regarding the state of my vineyards, and my estimate of the different qualities of grapes and the like, which gave rise to some remarks which I deem proper to offer for insertion in your paper. The first part of the following is copied from the letter I sent to the inquirer.

You inquire about my native vines of peculiar excellency, and wish a description thereof, with reference to Norton's seedling in a comparative view. My Halifax has twice as large a berry as the Norton's, and is equal, I consider, if not superior in other respects, and especially freedom from rotting or any other casualty. The growth of the vine is much more extended than that of the Norton; I have them spreading over trees and scaffolding 30 feet and more each way, and bearing well wherever the vine branches go. The size of the berry prevents all depredations by birds; but not so the Norton. The Norton ripens rather earlier than the Halifax. The bunches of my Halifax are more easily cleaned or prepared for pressing; as all the grapes ripen at once, and no green ones among them. The Vine Arbor grape has a berry of somewhat different flavor, and vine leaf much larger, (hence fine for arborers;) but in all other respects, as that of the size of the fruit, rapidity of growth, and extended spread of the branches, answers to the Halifax. But the Norton is a most excellent grape, and all three very fine for table when fully ripe, and very superior for wine, and never disappoint as to a full crop, by rotting or otherwise, in my region or elsewhere, as far as I have learned, and I have heard from them from various sections of our country, wherever distributed; the Weller Halifax in particular, doing finely in Orange county, N. York, my native place. Indeed, I have reason to believe that the foregoing and other natives I cultivate, of like excellence, will do well in any part of our Union. But not so the famous Scuppernong of North Carolina nativity. Although in our region the finest grape in the world, I may say, yet north of latitude 37°, I learn it will not answer well, as ripening too late for the climate. As a circumstance to warrant the above encomium on the Scuppernong, I name that a French gentleman visiting my vineyards, who like many other foreigners, was disposed to disparage American native grapes, when coming to my Scuppernong arbors loaded with the largest of grape berries, as well as most delicious to his taste, exclaimed "here is a grape equal if not superior to any I have ever seen in France." In Southern climates under the best management, 2,000 gallons an acre may be calculated on as a vineyard product. Good brandied Scuppernong wine at rates of a dollar a gallon in the market. I make some with about two lbs. of double refined sugar to the gallon, that brings me two dollars per gallon; and is considered by many equal to the best champagne. The Scuppernong juice is not near as strong or as much saccharine in it, as the aforesaid natives. Indeed, the juice of the latter this season, when I tested its strength with an egg, floated it so that a part as large as a twenty cent piece, appeared above the surface; or according to Mr. Adlum's test would have made a good keeping wine, without the addition of either sugar or brandy. (Some years since, I made some from well ripened grapes of my Halifax, without adding any ingredient, that kept well and continued to improve by age.) But the Scuppernong is easier gathered than other kinds of grapes; nothing to do but to hold a large sheet or blanket, (fastened to poles on two sides, and two persons to hold,) and shake the canopy above with a forked stick, and all the grapes then ripe fall into or upon the sheet. Next they are mashed with a machine of two wooden rollers, (very soon done,) and pressed, and the juice strained through several folds of a woolen blanket, and then sugar or brandy added, and put in casks; it stands till winter, and is then racked off, and is as limpid as water, and a most healthful and excellent wine. Fe-

malles aware of its excellence, (as well as of my other wines,) as a medicine, send from considerable distances around, to procure it in case of sickness. A neighbor some two months since, was attacked with a complaint that usually lasted him for some weeks. I sent him a bottle of my oldest and best wine, which he avers cured him in a few days. As it is unequivocally the pure juice of the grape, churches in this region prefer my wine for communion occasions.

Some of my Scuppernong vines of 10 or 12 years old, yielded their half barrel a piece, the vintage just past. Yet this is small compared with a vine procured of me some 8 years since, and planted in a garden, which yielded a barrel last year, (I have not heard from it this;) and of another on the sea coast of this state, that alone covers near a quarter of an acre, and yields five barrels annually, besides supplying its owner and neighbors with most delicious fruit during a season of near two months. The Scuppernong far out goes any sort of grape I have ever heard or read of, (except it may be the famous Ham-burgh of England, at Hampton,) as to yield of single vines. But yet my Halifax, and others, fall not far short of it as to yield by the acre. I plant all but the Scuppernong 10 feet each way; but for that 30 feet each way full near. At 40 feet, well managed, they will form a canopy over head in 10 or 12 years. Some branches of mine at that age, extend 60 feet each way.

As instances of yield per vine, of other kinds, I name that 20 of my Vine Arbor (some of them young and comparatively small,) yielded the past vintage near a barrel of wine; and about 60 of my Halifax, more than two barrels.

As an instance of the rapid increase of a vineyard in the South, when fairly under way, I state that year before last, I made about 8 barrels of wine; last year 12; and the past vintage of this season between 20 and 30; and next year I calculate on 40 or more. Particularly in the Carolinas and Virginia, where cotton is becoming no longer a profitable staple, considerable attention is awakening to the importance of vineyards. Among various late applications for rooted vines (I have nearly 2,000,) and cuttings, a gentleman in South Carolina applies for several hundred rooted Scuppernongs, (this kind does not succeed with cuttings, though well with ever so small roots,) and asks their price. I named as a medium price, 20 dollars per hundred for largest, or two year old, in nursery; 15 for one year old, and 10 for the season layers or smallest rooted.

I close this communication, (now longer than intended,) by an observation on the self-manuring plan, or that indicated by nature's process. Woods (particularly our Southern piney old fields,) are renovated by the annual fall of leaves. But apart from art, as well as nature, a vineyard could not be self-manured; for the leaves would blow away soon after falling. Therefore, I scarify the ground on the eve of frosts; and immediately after the falling of the leaves I run over the ground again with a cultivator or harrow. This done every fall, there is no need of otherwise keeping up the fertility of the soil. Another mode I use, is to cover some depths with pine leaves or other litter, and every year or so add more; a similar mode to that by which I double my crops of wheat and other small grain, and at the same time continually increase the fertility of the soil by securing a clover crop and otherwise.

As to the modes of planting, trimming and scaffolding the vines, and various processes of making wine to secure its excellency and safe keeping, or various things pertaining to what I have denominated "The American System of Vine Culture," I may communicate again shortly for your very useful periodical.

Yours, &c.

S. WELLER.

Brinkleyville, Halifax co., N. C., Nov. 14, 1843.

VIRGINIA LANDS.

MESSRS. GAYLORD & TUCKER—The attention of the public has been frequently invited to the advantages which a portion of the state of Virginia now offers to the industrious and enterprising who may be disposed to settle there. Great numbers have availed themselves of them, and many are at present seeking favorable locations. To such I desire through your valuable paper to address myself.

I am the owner of the estate called Oak Hill, the residence of the late James Monroe, Ex-President of the U. States, which lies in Loudon co. near Aldie and Leesburg. It consists of upwards of 2000 acres, finely watered and in every respect capable of high improvement. The climate is inviting, and the portion of country of which it forms a part, requires nothing but an active, industrious and commercial population to render it one of the most flourishing parts of the U. States. It is distant from Washington, Alexandria and Georgetown, about 33 miles, and in a direct line from the Potomac about 9, and from the Chesapeake and Ohio canal say 12.

With such as may be disposed to unite in the cultivation and improvement of this property, I will make very advantageous terms. I will lay off proper portions, and furnish all the necessary stock and farming utensils to those who may be disposed to work them on shares. Although I prefer not to sell, I will advance to purchasers of small tracts money to stock them, and require nothing in cash, postponing payments so as to afford full opportunity to realize them from the property itself. Any other offers tending to the improvement of this estate, I would be glad to receive, and to which if addressed to me at the city of Washington, I will give prompt attention.

Yours,

SAM'L L. GOUVERNEUR.

ABORTION—USEFUL SUGGESTIONS—MARLING.

WE give place to the following paper, notwithstanding its length, on account of the valuable facts and suggestions it contains. The mass of excellent papers now on hand, however, reminds us that in all cases condensation and conciseness are desirable, as we find even the large and close columns of the Cultivator unable to contain all the favors of our increasing list of correspondents.

MESSRS. GAYLORD & TUCKER—As much inquiry has been made lately with regard to abortion of cows, which has been very prevalent this year in many parts of the country, and as from a multitude of facts a coincidence of circumstances may sometimes be observed, by which a general principle or correct theory may be founded, or an incorrect one unfounded, by discovering the absence of coincidence, I give you for publication, if you think it worth a place in your paper, a few instances of abortion which I have noticed; and I mention them in part to answer the inquiry (inquiry in form, though a kind of challenge in spirit,) of "D." in the August no. of the Cultivator, viz: whether the disease has been known to prevail except where the cows fed upon the luxuriant herbage of low, damp, rich pastures. Unless the "ergot" which he thinks produces the disease, is something that pertains to dry food as well as green herbage, or the germ of the disease is retained a long time in the animal, it will appear from what follows that the conditions he mentions are not necessary to the production of the disease. In December, 1840, I was viewing the improved stock of Mr. R. Sample, on James river, Va., and noticed that abortion prevailed among his cows, which was deeply regretted by Mr. S., as he had set much value on the calves in prospect; but though a very observing and careful farmer, he was unable to assign a cause for the disease. The cows were then, and had been for a considerable time, feeding on wheat chaff. It was suggested to him that the chaff might be the cause of the cows aborting, but he thought it not probable, since it was common for his cattle to feed on chaff at that season of the year. Their drink was pure brook water. I observed that the disease prevailed on several other plantations also, and in every case the cows were feeding freely on chaff. This circumstance strongly inclined me to the belief that smut or something else not common to grain was contained in the chaff and produced the disease. The latter part of last winter, several of the cows of Mr. G. Faile of East Chester, N. Y. aborted, though they received every attention that a very careful husbandman could bestow. They were warmly and dryly stabled, regularly fed and watered, and furnished, I believe, with as much salt as they would eat, for I think this is Mr. F.'s practice. I am sure he neglects nothing that will contribute to the thrift or comfort of any thing in his care. This case at least causes a doubt of the efficacy of "D.'s" panacea, salt. Some of the cows were springing, and the embryo of others little more than half grown. When upon inquiry, I found Mr. F. was feeding chaff to his cows, I was confirmed in my belief that something connected with chaff produced the disease. But since the disease has prevailed quite extensively this season among cows on green food only, I am inclined to doubt the correctness of the opinion I had formed, unless the ergot is common to both grass and grain. Here I observe in myself the same fault or weakness that I have sometimes observed in others, viz: the disposition to form conclusions and establish opinions, not upon the knowledge of the action of some known principle, but upon some single circumstance.

Would it not be well for editors, when opinions of doubtful authority are advanced, to accompany the article with what cautiousness might suggest, especially if the article might lead one, in adopting the opinions contained in it, to incur expense or hazard? These suggestions may seem to be justified by what follows.

Several persons in Connecticut, having seen it stated that fish oil put upon fruit trees would keep off insects, applied the oil on plum and peach trees, the result of which was the trees all died. A farmer in Maryland, was informed that to soak seed wheat in strong brine and roll it in lime, would prevent smut; he accordingly soaked all he intended to sow in a strong brine 48 hours, then dried it by rolling in lime; the consequence of which was, none of it grew. Another put his seed wheat through the same process, (but it was not so long in soak,) and it grew well; and not having enough soaked, he finished sowing the field with unprepared wheat from the same parcel, and at harvest found the brined and limed was free from smut, while the other was badly smutted. Why this discrepancy? Did the first destroy the vitality of his seed by soaking it too long? From the experience of many of the best wheat growers, I am satisfied that this preparation of seed is advantageous when rightly conducted. Notwithstanding you or your correspondents may have many times given the proper method of preparing seed, would it not be well to repeat it annually, immediately before sowing time? This idea of a thing appearing in its appropriate season, brings to mind what a gentleman in Virginia told me, namely, that three or four years ago, as he was about to begin to cut his clover, he was looking over the Cultivator, just received, and found an article directing how to cure clover hay, which at another season of the year he said he might not have noticed. Particularly, but as it came opportunely and seemed reasonable, he adopted it, and it was worth at least \$20 to him that season. Might not some of your correspondents be more useful

by being a little more explicit in their communications, and what is obscure in any degree, would it not be well for you to elucidate? A word or phrase not in common use among farmers, whose meaning would be obvious to you, might be "Greek," that is, unintelligible to many of your readers. Hence I suggest that in addition to your dictionary of terms, you give the meaning, where it occurs, of any word or phrase of doubtful import, especially of scientific terms not commonly understood among farmers. I know that some think that what you now devote to definitions might be better filled with other matter, but I believe most of your readers regard that as a valuable part of your paper.

In a paper of such extensive usefulness and circulation as the Cultivator, it would be impossible to satisfy all. While some seek to learn all that is known, and to promote the discovery of what is unknown, and to make all as free and general as the dews of heaven, and rejoice when they see any thing which may benefit somebody, if not themselves, others are satisfied with what little knowledge accident has forced upon them, unless it be something whose benefit is tangible—in other words, that will return to their hands as many cents as it cost, with large interest, and this they would monopolize. So it may be perfectly in character for some to complain that they don't get the worth of their money—that "too much is published that don't concern us here;" at the same time, if you will question them, you will draw from them the acknowledgment that some one article has saved them more than the paper cost for the year. I have heard men, who take your paper because it is profitable, on lighting upon an article, (of acknowledged usefulness somewhere,) which was not appropriate to their particular business, complain that they did not want to pay for a paper devoted to interests not their own.

Farmers—yes, farmers—liberal and spirited as they are, complain that a paper is too much southern—too much northern—too much eastern—too much western, because it contains, it may be, an article upon the culture of cotton and tobacco, or upon wool growing and root culture, or upon the use of lime and the refuse of a comb or woollen manufactory, or upon the manufacture of lard oil, and sugar from cornstalks. Do what you will for Haman, he is dissatisfied so long as Mordecai is at the gate. A gentleman in Virginia said, three years ago, that he had taken the Cultivator one year, but would never take it again. But why this hostility to the Cultivator? Is it not the farmer's friend? Does it not collect the experience and the improvements of the whole fraternity of farmers, and thus, by circulating as it does through every part of the country, disseminate useful knowledge that might otherwise be confined to very narrow spaces, and has it not the patronage and confidence of the best farmers of our country? "Yes, it had my confidence; it recommended the putting of lime on land, and I followed the recommendation, and lost \$50 by it. I put on 80 bushels to the acre, and it is all lost—worse than lost, for it has injured the land." But did the Cultivator direct that you should put lime on all land, and did you first ascertain whether your soil needs liming, and have you, before condemning it, allowed time for the lime to have its proper effect, by being thoroughly incorporated with the soil, and if it ultimately prove a failure, would it not be well for your experience in the case to be made known through an extensively circulated paper like the Cultivator, that other farmers may guard against a similar loss? "Yes, every body ought to know it." This burst of feeling came with a tone not so much indicating a wish to benefit others as to avenge a supposed injury. So you see, Messrs. Editors, that you and your correspondents may become the subjects of imprecation as well as of prayers. But what is the sequel of the case before us? Why, the lime has had time to be well mixed with the soil, has proved itself to be equal to all that was claimed for it in the once execrable article, and the gentleman now thinks he will be not \$50 the worse, but \$1,000 the better for taking the Cultivator. It is needless to tell you he is now an advocate for agricultural papers. Does not the case naturally suggest the following reflections? 1st. That it is important that those who communicate information be careful not to assert for facts what is mere conjecture, and that facts and experiments be so explicitly stated as not to be misunderstood. 2d. That it is injudicious to adopt any expensive improvement on a large scale without knowing its applicability to the individual case. 3d. That it is quite unreasonable to expect a thing to operate in a time and manner contrary to its nature. And 4thly. When we conceive ourselves injured, it would be advisable to wait for second sober thoughts before we break forth in denunciation, lest we injure real friends.

Permit me here to mention another instance of the value of calcareous manure. Major A. STUART, Augusta county, Virginia, four years ago gave a part of a field a liberal dressing (the quantity per acre I don't know,) of marl, which is abundant on his farm. The first year he noticed its effects carefully, hoping to see an improvement in the crop, but he was disappointed, for the effect he thought was rather injurious; and being thus disappointed, he concluded the marl was worthless to him, and don't recollect to have noticed any effect from it the second year; but the third year he was called upon by such visible tokens of improvement in the clover crop which was on the field, that he could no longer be indifferent about the marl. This year, the field being in wheat, he found the improvement still greater, the difference being as three to one in favor of the marled portion of the field, and this difference being

attributable wholly to the action of the marl. This soil is a ferruginous clay, abounding in lime rock, which, as you are aware, is the case with most of the land in the valley of Virginia. Is it not a general opinion that on limestone land calcareous manures are not beneficial? And has this opinion arisen from the supposition only, or from the fact that soils partake largely of the properties of the rocks found in them? I believe that in Mr. Colman's survey of Massachusetts, it was found that in Lanesboro, Berkshire co., which you know abounds in marble, the soil contains less lime than some other towns where limestone is not found. If, then, limestone land requires, in order to its greatest degree of productiveness, more lime, it would be greatly to the public interest to show that the fact exists, and how most easily and surely where it exists. Are the properties of lime and ashes as a manure similar? And if so, why is it that here lime is not beneficial as a manure? for this is the opinion here, though it is well known that ashes are an important article with the farmer. I neglected to mention in its place that Major Stuart's wheat on the marled portion of the field, was free from rust, and on the other portion badly rusted. A great desideratum among wheat growers is a kind of wheat that is at once hardy, prolific and of early maturity. It is difficult at present to shun both the fly and rust. During the second week in July last, wheat was badly injured by rust in Pennsylvania, Maryland and Virginia, and the early varieties came in fine. I calculate that if a variety of wheat every way equal to what we now have, but ripening two weeks earlier, could be substituted for the present varieties, it would add ten millions of bushels to the wheat crop of our country annually.

PEREGRINATOR.

Manhasset, L. I., Sept. 8, 1843.

AGRICULTURAL ITEMS.

OUR respected friend, W. Jennison of Cambridge, Mass., has communicated several notices of agricultural matters, which we have in part condensed for the Cultivator.

"MESSRS. GAYLORD & TUCKER—Below I give you an account taken from the Gentleman's Magazine, of an extraordinary yield of wheat. It seems to me improbable, but is perhaps barely possible, and I should be glad to have your opinion thereon.

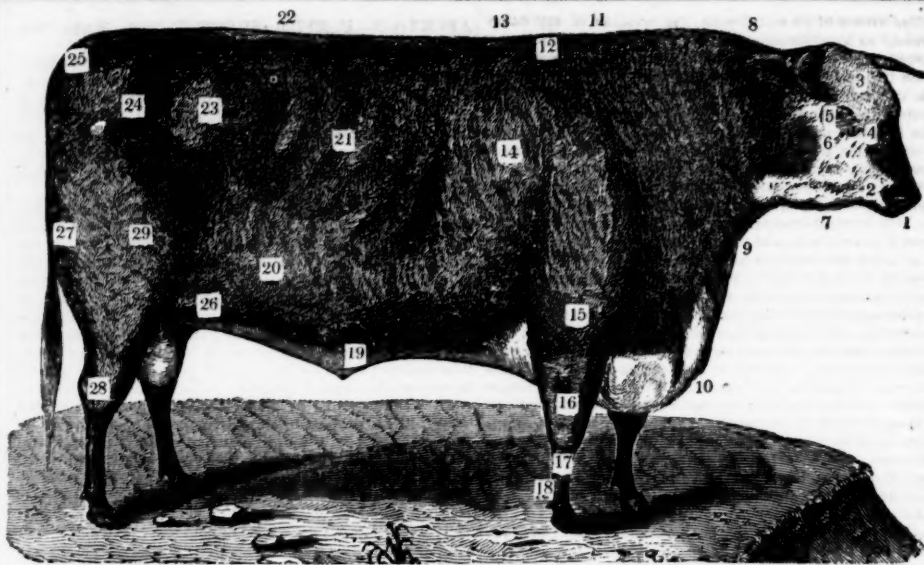
A farmer in Sussex, as an experiment, planted 18 grains of wheat at the distance of 6 inches from each other. They all vegetated, but one-third was afterwards destroyed by worms, leaving 12 plants. These flourished, and were cut in August. The product was 213 fine ears, or about 18 ears of 39 grains each, to each seed sown. The weight of the wheat, was 12½ oz. This wheat, it will be seen, occupied 3 superficial feet. The feet in an acre is 43,560, which divided by 3, gives 14,520. This multiplied by 12½ gives the number of ounces at 177,870, which again divided by 960, the number of ounces in a bushel of wheat of 60 lbs. weight, gives a product of 185½ bushels per acre, from single grains set at the distance of 6 inches, over the whole."

That a wheat crop of 185 bushels per acre was ever raised, no one pretends; but there is nothing impossible in the parts of the above statement in themselves considered. That 12 seeds will grow on 3 square feet is clear; that a seed might produce 18 stalks or ears is also certain, and the rate of seeds per ear is not high. We have picked several ears of wheat from one field that had over 70 kernels in each, and in a head of Texan or Egyptian wheat received from the south, we had 203. We therefore consider such an acreable product as a thing that might be, but never was.

"FATTING OF HOGS.—Near Dugeburg in Westphalia, celebrated for its fine hams, the hogs are principally fattened on chestnuts and potatoes. The hogs are made nearly fat by running in the woods abounding in chestnuts, and where they cannot run at large, the nuts are gathered and fed to them in pens. In the last stage of fattening, after their range in the woods is over, they are fed on potatoes, which are baked. Large ovens are used for this purpose, and it is found that thus prepared, the potatoes is the most fattening of all food, while the peculiar flavor of the hams is thought to be owing to this root thus prepared. In this district few horses are worked, farm labor being mostly done by oxen or cows, the latter suffering no inconvenience from being lightly worked.

"OIL FROM THE POPPY.—In a large part of Flanders the principal articles of cultivation are tobacco, the haricot or French bean, and the poppy. A large part of the olive trees in the south of France, were destroyed by the severe winter of 1807, and the culture of the poppy for the sake of the seed, was introduced as a substitute. The oil made from this seed is very fine, and in taste and color is much like the best olive. It is extracted by iron cylinders which crush the seed, and these are worked by windmills, of which there are more than 200 in the vicinity of Lille alone. The pulp, or residuum, is made into oil cake for cattle, and its fattening qualities are very great; while the stems are used by the bakers for heating their ovens."

The queries of Mr. Jennison, respecting the U. S. census of Agriculture, we are unable to answer. Of its imperfections we have always been sensible; but the adoption of the system we consider as a great point gained, and one which in its results will be of vast importance to the nation. Faults of detail experience will enable us to correct, and in the future enumerations of our products, we may expect great if not entire completeness.



HEREFORD BULL "SIR GEORGE."—(Fig. 101.)

HEREFORD CATTLE.

MESSRS. GAYLORD & TUCKER—In giving my ideas of the true points a Hereford should possess to arrive at perfection, I shall endeavor to do it as briefly as my limited ability will allow; therefore I take the responsibility of amending the errors at some future period, whenever my opponents think fit to advance them and prove them so.

I commence with a white or brockle muzzle, (1.) (see fig. 101.) a small kind chop, (2.) flat broad forehead, (3.) white or brockle face, (4.) bright clear eye, (5.) with an expression of mildness, encircled with pure transparent white, (which in my opinion is a true indication of good handling and a superior quality of flesh; I fully believe that the eye shows the high breeding better than any other part of the animal;) small cheek, (6.) with light offal under the throat and gullet; (7.) the whole of the head small, with small long taper horns of a light color, neck thin and narrow, (8.) and light dulap, (9.) heavy wide prominent brisket, (10.) well projecting before the knees, (which I consider the second point to be looked at in good breeding,) shoulder blades (11.) and crop (12.) level with the chine, (13.) which should be broad, straight and fleshy, and perfectly level between the ribs (14.) and shoulders, the lower part of the shoulders (15.) light with little offal, arm (16.) short and sinewy, bone between knee and hoofs (17.) small and short, supported by strong sinews (18.) and muscle, belly or bottom (19.) straight with light paunch, (20.) ribs (21.) round and well filled up toward the hip, loin (22.) wide and flat and straight with the chine, hips (23.) broad, large, round and fleshy, long between hip and rump, (24.) the latter lined with mellow flesh, the ketch (25.) prominent, the tail set on level with the back, of a moderate size, flank (26.) heavy, the udder should not be large and bulky, but free from flesh, loose and supple; quarters of an equal size, teats well spread and of medium length and size, twist (27.) heavy and fleshy, hock (28.) strong, thigh (29.) not too large. Coat soft, thick and silky, hide thick, and mellow handling, the whole appearance of the animal grand and showy, with every symptom of activity. I want the bull to have all the above points except the sexual distinction, a heavy animal in small compass.

Hereford Hall, Oct. 15, 1843.

W. H. SOTHAM.

EXPERIMENT IN WHEAT.

MESSRS. EDITORS—The following novel and interesting experiment which I find in the London Times of the 9th September, 1843, having lately been successfully made at Cheam, in Surrey, deserves a place in your valuable journal.

A. WALSH.

Lansingburgh, Nov. 18, 1843.

In July, 1842, Mr. A. Palmer put one grain of wheat in a common garden pot. In August the same was divided into 4 plants, which in three weeks were again divided into 12 plants. In September these 12 plants were divided into 32, which in November were divided into 50 plants, and then placed in open ground. In July, 1843, 12 of the plants failed, but the remainder 38 were healthy. On the 19th of August they were cut down, and counted 1,972 stems, with an average of 50 grains to a stem, giving an increase of 98,600!

Now sir, if this be a practicable measure of planting wheat, it follows that most of the grain now used for seed, may be saved, and will infinitely more than cover the extra expense of sowing, as the wheat plants can be raised by the laborer in his garden, his wife and children being employed in dividing and transplanting them.

I have enclosed one of the stems as a sample. You will find it rather above six feet long, and stout in proportion.

Spring-grove, Sept. 9, 1843.

HENRY POWNALL.

There are great varieties in our persons, but the varieties are greater in our characters.

VISIT TO THE TIOGA FAIR.

MESSRS. GAYLORD & TUCKER—At an early hour on the morning of the 3d of October, I sat out from Ithaca, accompanied with a friend, to attend the Agricultural Fair of Tioga co. held at Owego. The weather was raw, with indications of rain, which, together with a militia "general training,"—which by the way is the greatest humbug of the day—in the vicinity, prevented as large a gathering at the Fair as that of last year. However, the number was respectfully large, and on our arrival at head quarters, we found the President of the Society and Executive Committee actively at work remodeling the viewing committees, owing to delinquencies, and arranging articles presented for the in-door exhibition. For my own part, I had not formed large expectations of pleasure from any exhibitions of stock which might be made—the herd of Mr. Geo. J. Pumpelly, excepted, which I had heard commended—but I am bound to say that I was agreeably disappointed. Tioga has long been celebrated as a "lumber county," and not famed for any special advances in agricultural improvement; hence it was that the display of so much good stock took me by surprise, which is doubly honorable to the enterprise of her farmers, considering the disadvantages they have contended with compared with their brethren in older and more favored counties. The cow belonging to the president, as well as several others, the owner's names of which I regret having forgotten, were quite attractive and would have been worthy of remark any where. There were several pairs of steers too of great beauty, indicating Devon blood. The paucity of working oxen was regretted, as there are probably few counties in the state that could make a larger display of good ones, inasmuch as so many are necessarily employed in that important branch of business of the county, lumbering. I beg leave to suggest that the Society will do well to enlarge their premiums on working oxen, being in so much request, indeed so indispensable in all lumber districts. The specimens of "long woolled sheep," of which the exhibition was numerous, were in general, good; and of South Downs there were several "real beauties." The truth is, for mutton, the latter are unrivaled, and considering their easy keep compared with the Leicester, will eventually take a front rank in this country, where they already stand in England. Two capital Merinos were shown, and some grades, but not a Saxon! Well, this is not altogether strange, for Tioga is not yet quite out of the woods, and her hardy farmers have not probably learned the fact that the Saxons have this year eclipsed all other varieties in profit, and will continue to do so until they are far more numerous than at present. Those who have gone back to heavy gummy fleeces will live to learn their error. Let this be noted.

But decidedly the most attractive part of the exhibition was the numerous herd of half blood Short Horns, belonging to Geo. J. Pumpelly of Owego. If any man ever doubted that our native cattle were susceptible of improvement by crossing with the English breeds, or that improvement was soonest effected by means of the Durham, in preference to any other improved breed for dairy purposes, his doubts would be dispelled could he see this fine herd, accompanied with other proofs which Mr. Pumpelly has to offer of his success. Crossing with the best native cows, both as to form, and especially milk, has been and now is the favorite object with Mr. P.; indeed, for dairy purposes, he thinks the pasture of the valley of the Susquehanna too luxuriant for the full blood Short Horn cow, being fully of the belief, drawn from the experience of several distinguished breeders in the state, that she would run too much to flesh, and in this ratio her milking qualities would deteriorate. In this conclusion I am well satisfied he is correct. But this intelligent gentleman will probably make known in the columns of the Cultivator, the result of his experi-

ment, when more fully consummated. I will further remark that Mr. Pumpelly was among the very first in this state to act in the Short Horn enterprise, not only with a view to improve his own stock, but that of the farmers in his vicinity; and like all who were earliest in the cause, he is deserving of much commendation, for the reason that it demanded then a much larger pecuniary outlay than at present, and far more prejudice was encountered from that numerous class of farmers known as anti-innovation and anti-improvement. His bull from which most of his cross stock have originated, is an imported animal, formidable as to size, of great length, very hardy, and with the exception of some coarseness about the neck and head, is good; and his stock gettings manifest the excellence of his blood.

The exhibition of vegetables was very good, not only indicating good culture, but demonstrating the capacity of the rich soil of the valley where they were mostly grown. Indeed, further proof of its fertility was to be found in the report presented to the Society of a wheat crop of five acres, averaging 40 bushels to the acre, grown on the farm of the Hon. Nehemiah Platt, in the town of Nicholas, adjoining Owego. It was sown after corn; variety, Hutchinson, which by the way is very hardy, and much less liable to be affected with rust than some other kinds.

In consequence of holding the Fair but one day, the address was delivered at the Court House in the evening, by the President of the Society, Mr. Charles Frederick Johnson, who is well known to all his friends as a gentleman distinguished for his literary and scientific attainments. As a composition it was classically chaste, and in the treatment of the several topics embraced it partook of the rich and useful stores of the author's mind; and although I have listened to a number of excellent addresses of this character, this, I must be permitted to say, surpassed them all. Hence it should not be laid under a bushel, but published, to which I hope Mr. Johnson will eventually consent. This judgment was unanimously awarded by the numerous and intelligent audience.

The "day after the Fair," I had the pleasure of seeing the operation of one of Ruggles, Nourse & Co.'s sub-soil plows, on the farm of Mr. Pumpelly, which was admirable. But there were no stones for it to encounter, and how it would work when they abounded to any extent, is with me a question, for I had never seen one before in employ. The field of ruta bagas which we were shown, bid fair to equal the extraordinary crop grown on Mr. P.'s farm last year, the account of which was recently published in the Cultivator.

The farm of Mr. Johnson, at least that portion I saw of it, appeared in fine order, and reflected the good management of the intelligent Scotch tenant who tills it.

Few comparatively of your readers are perhaps aware of the charming locality of the village of Owego in the valleys of the beautiful Susquehanna, and another stream called the Owego creek, which, from its fulness and width, were it in the old world, would be dignified with the name of river. The scenery which environs the place is varied, and truly picturesque; this, however, is not the place to enter into particulars concerning it. But another charm of a more exalted character is to be found in the superior intelligence and moral worth of a large portion of its society; and with many others before me, shall cherish grateful recollections as a recipient of its cordial and truly refined hospitality.

Your friend, L. A. MORRELL.

Lake Ridge, Tompkins co. N. Y., 1843.

EXPERIMENT WITH CHARCOAL.

MESSRS. EDITORS—I mentioned to you last spring, that I had sown fifty-two bushels of charcoal dust to the acre, on wheat, and would give you the result of the experiment. In order that my promise might be fulfilled, I selected a corner of a twenty-five acre field of wheat, containing by survey two rods; the grain was harvested while in the milk, on the 17th of July; threshed, cleaned and measured on the 21st, yielding 31 quarts and 1 pint, or 78 bushels and 24 quarts to the acre. As the above fact may appear incredible to many wheat growers, I enclose the survey, and certificates of two of my men who measured it.

I have grown cuttings of the *Camelia japonica*, soft wooded geraniums, cactus, wax plants, &c. in pure charcoal dust, without any admixture of earth; likewise corn, beet, carrot, and other seeds, and believe it to be the most valuable substance now known as manure, being pure, incorruptible and lasting.

Yours respectfully, ROBERT L. PELL.

Pelham, Ulster co., Nov. 20, 1843.

I, M. W. Powell, surveyor, hereby certify that I have measured the ground herein described, beginning at an apple tree, and running a northwest course ninety-five links, thence a southwest course fifty links, thence east thirty links to a line to the north angle, thence east seventy links to the place of beginning; the line from the base to the north angle being twenty-six links, containing two rods, which is a portion of R. L. Pell's wheat lot No. 2.

M. W. POWELL.

Affirmed before me on the 15th day of July, 1843.

M. M. KEELER, Justice of the Peace.

We, Patrick Farrell and Leonard Latten, hereby certify that we gathered, threshed, cleaned and measured the wheat grown on the above described two rods of ground, belonging to Robert L. Pell, Esq., of Pelham, Ulster co. and the yield was 31 quarts and 1 pint, dry measure; we

believe if the gleanings had been threshed, there would have been one bushel.

PATRICK FARRELL,
LEONARD LATTEN.

SHEEP ON THE PRAIRIES & OTHER MATTERS.

EDITORS OF THE CULTIVATOR—Your complimentary note in the October number, upon the subject of my removal from the office of Postmaster, (which I had held for many years with but a mere trifle of compensation for a large amount of service, except the advantage of the franking privilege,) has given me great satisfaction, and induces me still to go on trying to contribute my mite toward promoting the happiness of my brethren in a good cause. Permit me here to say to a number of my correspondents who will probably read this, for their acquaintance with me seems to be formed through your columns, that the principal reason why I have not answered their letters of late is because I felt unwilling to burden them with a heavy postage tax for a letter that I could not believe would be worth the money. For the same reason, my communications to the numerous agricultural papers will be less frequent than formerly. By this, however, I must believe that the public will lose less profit than I shall pleasure. It is in the power of the agricultural class, and I think it is their duty to endeavor to bring about such a state of public feeling as to eradicate the monstrous false doctrine from this republic that leads our rulers to such wanton acts of "proscription for opinion's sake."

If we cannot effect the adult population, let us rear up our children in the nurture and admonition of better principles. Why cannot we feel and act in all the concerns of life as some of the great men of antagonist political principles did at your glorious great Fair at Rochester, where they met as brothers and friends of the good and great cause of agricultural improvement? How much I regretted, while reading the proceedings, that I could not have been there to enjoy the pleasant scene. How much do such meetings tend to soften the asperities of human nature, and to create a neutral ground where those of every political and religious faith can meet and know each other only as brother farmers—tillers of the soil themselves or disposed to lend their countenance and talents toward the promotion of an object that has the bettering of the condition of such a vast portion of the human family in view.

But I am wandering from my objects, one of which is to say a few words to my friend JEWETT upon the subject of his article in the September no., headed "Sheep on the Prairies."

Your article bears internal evidence that you have never visited the prairie region. Whether the western country at large is or is not as favorable as Vermont for sheep raising, remains yet to be proved. But as you do not know of any large tract of country where sheep succeed well on level lands, or at least on lands free from mountains, such as are all of the northwestern states and territories, I will inform you that the great state of Ohio is that very country. Again, you are mistaken in your notion that the western prairies are a level, wet tract of country. They are often hilly—always undulating, except what we call marsh, which bears about the same proportion to the other parts that swamps do to other lands in the eastern states.

Although sheep may be fond of hills, yet they are also fond of good pasturage, such as the wild prairie grass affords in abundance sufficient to feed all the sheep in the Union. As to the sweeping winds and storms, I know that they are not so severe or frequent as in the eastern states. True, we have more steady windy weather, but not severe, as is proved by the fact that that unstaked rail fence very seldom blows down in the most exposed situations. As to free and pure air for sheep to breathe, I pray, friend Jewett, come and try it yourself. Spend a month or two with your friend Solon, and be convinced that he speaks truth.

Those stagnant pools that have so staggered your faith in favor of western sheep breeding, are so few and far between, that the sheep, having a wide, open country, well suited for a race, are able to outrun those awful carnivorous insects that abound only in thy imagination in great numbers.

The objection against the unevenness of our winters is certainly not calculated for this latitude. For nine years the winters have been dry and cold, with but a small quantity of snow at a time—never so deep as to hinder sheep from getting about; and about five months in length, instead of five months longer than usual. Heaven protect us from that! Ten months of winter! Think of that in latitude 41! True, last winter was the most severe one known since the first settlement here. It commenced November 16, by a snow storm more severe than any other during the winter, but the ground was not frozen for six weeks, and sheep could live well on rye or timothy pasture. I have known good feed in March, but it is not generally looked for until the middle of April. If calculation is made to feed sheep five months, it will not prove so poor a calculation as you calculate, and I calculate that there never will be any danger of millions of sheep perishing in the winter, particularly after being stung to death in the summer, besides dying of the rot occasioned by the malaria of those stagnant pools; and if we cannot raise fine wool, why we will try a coarser quality, until we get a breed that will stand and "turn like a weathercock," and if we derive no other advantage, we shall be able to tell which way the wind is whenever we can see the sheep's tails.

And if prairie grass will answer for small flocks, why

not for large ones? For certainly one of the great advantages that we possess is in not being under any necessity of stocking so close as you do in Vermont. We have no occasion to confine them to a tenth, while the whole is free; and I assert it as an indisputable fact that your white clover pastures cannot furnish better mutton or healthier sheep than the wild prairie grass ever has done throughout the whole prairie region.

"Some say"—well I say, "that government lands can be occupied rent free," longer than you or I will ever need pasture for our flocks in this world, prudent though I hope we both are in our dependence upon the future.

Wolves, too, which you hold up in terror, have no terror for the western shepherd, because none. But the little insignificant timorous prairie wolf abounds, and they abound not in sufficient abundance to make sad havoc in a flock.

Although distempers "may prevail," yet again they may not; because as yet they never have, and sheep have been bred in the west some 30 years, and until "scab and foot rot and sore toes and ragged coats," (no personal allusion I hope, in that last complaint,) come among us, we cannot tell what we shall do; but certainly we shall have the best chance in the world to change our pasture till frost comes. But after all this great array of diseases and dangers, here comes a reason therefor. It is in truth, because you are not alarmed about western competition in the wool market, that you have so kindly been trying to pull the wool (from) over our eyes, before we quite ruined ourselves with some of these "formidable objections" to the success of raising sheep on the great western prairies, that really seem to me as better adapted to that use than any other in the world that I know of.

"But time will test the question"—and in the meantime I shall try to grow wool in the west, and humbly advise some ten thousand more of my fellow laborers to go and do likewise.

I had some other subjects that I intended to speak of, but you see my space is full, and I cannot think of taxing you with double postage upon such a woolly subject, notwithstanding your very liberal request, for which accept my warmest thanks.

I hope to be able to have a word with your readers more frequently during the winter evenings; though I find that my eyes are getting rather too woolly, and I dread to acknowledge that I am obliged to call for spectacles, an article which I have not yet used.

I remain yours, and your reader's old friend,
Lake C. H., Ia., Nov. 1, 1843. SOLON ROBINSON.

DISEASE OF POTATOES.

MESSRS. GAYLORD & TUCKER—Many of the farmers in these parts have lost their crop of potatoes entirely, and others have suffered considerable damage, in consequence of a singular destruction of the crop. The potatoes, when dug, were remarkably fine in appearance, but when put in heaps in the field and covered as usual, they became a rotten mass. In a dry cellar, they held their appearance tolerably well, except somewhat darkened and a little shrivelled, but on breaking them open, it was found their surface, about a quarter of an inch in thickness, was of a dark brown, and some of them entirely through were of the same color. I usually raise between 2,000 and 3,000 bushels a year; this year my crop was a fair one. I fed my hogs, as I always do, with those that were not fit for market nor seed. I heard it rumored that they were poisonous to hogs, but I could not believe it, as my hogs had not been fed on anything else except a small quantity of corn once a day. I have them boiled, mashed while hot, and as they are fed out, mixed with a little milk, &c. I watched them with a little anxiety, and about two weeks ago, I heard an unnatural coughing amongst them, but I could not yet believe the potatoes caused it. Two of them soon began to pant, as if worried in a hot day; in about a week after they were taken, they refused to eat. They continued panting and struggling for breath four or five days after refusing to eat, and then died, with froth running out of their nostrils. I have a sow, with a litter of pigs about three months old; I observed the pigs began to cough and pant, so I have concluded to stop feeding potatoes to my hogs. I cannot say that the potatoes caused the disease, but certainly it seems so. Most of the potatoes raised in these parts are Mercers; other kinds, I am told, are effected in the same way, but not so extensively. Yours, &c.

Peekskill, Nov. 16, 1843. TYLER FOUNTAIN.

FATALITY OF THE POTATOE.

MESSRS. EDITORS—We in this section of country have this year been retarded in our prospects of the potatoe crop in a very remarkable manner, by a very strange fatality which the oldest inhabitants have never before witnessed. The potatoe has been attacked by a disorder somewhat resembling the plague, generally called the rot. This disease spreads with amazing rapidity from one potatoe to another through the entire crop, without the greatest care. When once saturated with the disease, the stench that emanates from them is almost insupportable to the olfactory or nasal nerves; I cannot conceive a scent more fetid or disagreeable. Many have left them to decay and remain where they grew; others raised them and placed them on dry, cool floors, spread out to dry; but the plague spread among them, and few have been saved, I suppose not above 20 per cent, and they of course not of so good a quality as in good seasons. The doctors say none should be eaten,

for fear of deleterious effects. Hogs I have heard have died of eating them. I have frequently seen a small, dark, mortified kind of spot, the size of a finger nail, on the potato, whence issued bubbles of matter; soon the potatoe would be entirely soft, filled with a yellowish matter, slimy, and somewhat resembling the rot of an egg. The touch of other potatoes would impart the disease, which would spread through the whole family. One man of my acquaintance took his up about the first, (many were raised earlier than common;) he had not heard of the disorder, nor did he suspect it from outward appearance, (thus many were deceived.) He placed them in his cellar, and when the talk arose about bad potatoes, he examined, found his potatoes spoiled, and threw them away. This disease stretches its baneful influence, so far as I have heard, in Pennsylvania, from near Philadelphia, westward beyond the Susquehanna river to York county. I presume the inhabitants where good potatoes are, may take a hint from this, feed more sparingly, and find a good demand at good prices, at least in a considerable part of Pennsylvania.

The causes attributed to the failure of the potatoe, are variability of season, long and frequent heavy rains, with intervals of extreme hot sun. Their growth was evidently pushed very fast, and I have seldom seen more plentiful crops or larger potatoes.

Chester co., Pa., Oct. 17. JOHN M. HARLAN.

Veterinary Department.

CURE FOR BOTS AND MURRAIN.

A WRITER in the American Farmer, who signs himself "J. W. J.," gives a number of instances in which he has been successful in curing the bots in horses by the use of lime, and in preventing the attacks of murrain by the same remedy. Having a few years since purchased a very fine horse, he soon found he was diseased, and in spite of the various remedies administered, grew worse. Finding he discharged some bots, he suspected the difficulty might be found in them, and commenced giving him a table spoonful of slaked lime three times a week, in bread mashers. Pursuing this course two weeks, the bots began to pass off in large quantities; his appetite began to improve, and in six weeks he became well and sleek. Since this, he has continued the use of lime among his horses with the best effect, and though he had lost many before, he has lost none since from any cause. Spirits of turpentine he found produced no effect on the live voided bot, while if put into lime, they were perfectly dead in forty-eight hours.

Mixed with salt, and fed to cattle two or three times a week, or rather by allowing them always to have access to troughs containing the mixture, he deems lime, and we think with very good reason, an effectual preventive of murrain. Since he commenced its use, he has not lost an animal from this disease, though some of his neighbors who neglected this precaution, have lost nearly all their cattle by it. In one instance, a farmer living near him lost nearly all his stock by this disease, while the animals of a neighbor living within 200 yards, and which ran daily with those that died, all escaped. The owner of those that escaped made it his rule to fling them a handful of salt and lime every morning. At the west, where the murrain is very prevalent and fatal, lime and salt are becoming to be considered a specific, so far as prevention is concerned; and when it is recollected that the disease once developed is rarely cured, it would seem advisable to adopt the use of this mixture wherever danger is to be apprehended.

BLIND TEETH IN HORSES.

We find the following in the Southern Planter. The facts stated appear somewhat curious to us, as we can find no allusion to such teeth in either Lawrence or Youatt. They indeed describe minutely the tusk which in some horses occupies the place of the one noticed in this extract, but no such qualities are ascribed to it by them, and examination will show it to be one of the firmest set teeth in the head. If any of our readers have noticed such teeth as are here described, and particularly if blindness has been in any case traceable to them, we should be glad to learn the facts, as every thing relating to that noble animal the horse must interest all engaged in agriculture.

"Mr. Editor—There occurs in some horses, between the ages of three and six, between the bridle tooth and grinders, a small, long tooth, without roots, and not inserted in a socket, but merely in the gum of the upper jaw. It has never been alluded to in any system of farriery, but our planters can trace its existence in this state for more than half a century.

"It may and doubtless does occur in horses of any shaped head, but in the three cases on my own farm, it was in horses of dished heads. One had gone entirely blind before I was apprised of the cause, and the other two I relieved by immediately extracting the blind teeth. Hundreds of instances could be adduced of the existence of blind teeth, and the destruction of sight when not extracted. No horse has ever been seen with them at mature age, having good eyes.

"It is conjectured by some to be peculiar to Indian corn feeding; by others, to a hot climate. The three cases under my own observation were in horses raised on my own farm; and not having ever seen any allusion elsewhere, I am inclined to believe it is confined to the south."

The Garden and the Orchard.

CULTURE OF THE PEACH, &c.

MESSRS. EDITORS.—In your present number, Mr. Butler has an article headed "Culture of the Peach." Speaking of the yellows, he has observed "that when one tree was infected, other trees standing near would be, unless the infected tree was immediately removed." Is it certain that the trees adjacent to the one removed, would have had the yellows without the removal? Has he cured the first appearance of yellows, by the removal of a tree from which the disease was supposed to be communicated? I have never removed a tree having the yellows, and I have as vigorous and as healthy trees with their limbs almost interlocked with trees having the yellows, and with others having died with the yellows, as I have ever seen or ever wish to have, and are open to the inspection of any person. The other part of his article partakes of too much incongruity, to need any remark. He wishes to know how Peach trees can be grown to insure fruit? Cultivate your trees till they begin to bear fruit, by plowing or digging about them in the spring of the year, and at the same time give them a good top dressing of well rotted manure and ashes. The earth about them must not be disturbed during the summer months. Indian corn is the best crop I know of, to cultivate with the trees, and you might cease to work the ground after the trees are three years old, and sow grass seeds. The grass should never be cut and carried off the ground. After you are done working the ground, spread some good long manure every fall for several years, over the surface of the ground, as far out as the roots are likely to extend, and in the spring cover the surface of the ground with straw to the depth of several inches, and if your trees fail to produce fruit, then I will admit myself in error.

Your correspondent "P." says he planted his corn according to my directions and failed. I rather expect he is in error. My plan is to plant just close enough to keep in check all spontaneous growths after the corn has attained one-third its matured height; and to obtain this, the corn producing a short stalk, admits of being planted closer than that producing a larger stalk. P. says his peach trees where he now lives, are not diseased, and thinks they never have the yellows in new lands, "till one generation of peach trees has passed away." This is doubtful language in regard to time; but without remark to what length of time constitutes one generation among peach trees, allow me to say, that upon a farm I once owned in the state of Arkansas, peach trees grew well upon one part of it, and upon another part they did not; that one of my then neighbors, complained that he could not grow the tree, and that his next neighbor had no difficulty in raising them. Now this was all upon new lands, and within two or three miles square. On those lands that I supposed held in combination more than the usual quantity of nitre, the tree did very well; but whether it was from this cause or not, I will not undertake to say, as there is another way of accounting for it. This, and all other trees and plants that I cultivate, are benefited by preventing the earth in which the roots run, from sudden and rapid changes of temperature, and a new soil made up of light vegetable particles, would have the effect to produce a greater equality in the temperature of the earth, than the same soil would have after being exposed and worked for some years, and possibly your correspondent's fine trees are produced from both of these causes.

While upon this subject, allow me to give to the society offering a premium for the prevention of blight, &c. in the Pear tree, my views, though I have no desire to take their premium; holding myself largely indebted for much information obtained through the aid of such institutions, I give what I know free of all charge, and if I am right in these suggestions, they can appropriate the amount for some other public purpose.

BLIGHT IN THE PEAR TREE.

The blight in the pear tree is produced from one of two causes, or from both. 1st. The cultivation of the tree after a set of organs have been established and matured for the production of fruit, and in situations where manure cannot be applied, it may be for the want of the necessary pabulum for the support of its organism and for fruit. 2d. For the want of protection to the roots, from sudden changes of temperature.

To prevent this disease, it is necessary to cease cultivating the ground the trees occupy, after they commence bearing fruit; and cultivate the tree by top dressings of manure, to be applied in the fall of the year, and by covering the surface of the ground with straw, litter, tan, or any other matter that will protect the roots, or rather the ground in which they run, from sudden rise or fall of temperature. If the soil is destitute of iron, this mineral should be added to it. I mention the iron from various observations made where it has been of vast importance in restoring to health diseased pear trees, and from observing that pear trees grow vigorously and live almost entirely exempt from disease, upon soils containing iron, provided the trees are not injured by cultivation, after they have perfected a set of vessels for the formation of fruit, or in other words, after they commence bearing full crops of fruit; but the iron alone is no preventive, but seems to form an important ingredient to this tree. In no case, should the ground be disturbed by plowing or digging after the tree commences to bear fruit.

All perennials with which I am acquainted, make preparation one year for the next year's fruit. Whether

this is the formation of organs annually, or the deposit of matter in the plant for fruit, or partly of both, is not necessary for me at this time to inquire; but that such preparation is made, is clearly shown by pulling the summer growth of leaves from off a branch of a fruit tree, that is in full bearing, while succulent and before they become firm and hard. This branch, if the experiment is properly made, will produce no fruit the succeeding year. An injury inflicted on the roots with the plow, and particularly if done in July or August, will produce disease, and if any fruit should be formed on the tree thus injured, it will be defective.

Writers upon orchards, tell us that certain kinds of pears are not worth cultivating on account of disease; but at the same time, admit that trees of these kinds are still in existence, and continue to produce good fruit and are to be found in cities, and I strongly suspect, in situations where the ground around them is not cultivated; and where their roots are protected by brick pavement, or by something else, from sudden change of temperature.

A protective covering to the roots, is not only of advantage to the pear tree, but to most if not all other plants we cultivate upon our farms: and for the want of it, can be attributed many of the diseases our plants are subject to. Upon a good soil, the peach tree is rarely if ever infested with worms, if the roots to their extremities are placed in a situation where the temperature of the earth about them is gradually raised and diminished by the many sudden changes of weather in our climate. I have five trees thus situated, about which a worm has never appeared, although my orchard has furnished them in thousands, together with a nursery I have kept for the purpose of inquiring into their history, still these five trees remain untouched by worms.

The Plum produces well and is exempt from disease when properly tilled, and its roots protected from sudden changes of temperature.

Nature's plan is to protect the roots of the plants either by shade from the green foliage, or by decayed and decaying vegetable matter, and by both. A tree standing alone, and not near other trees, and without artificial aid, grows but slowly till the ground becomes covered with decayed vegetable matter, and its branches extend sufficiently to produce a shading to the ground occupied by its main roots. Our forests are affected by the timber being thinned out and the undergrowth kept down; the trees become diseased; worms make inroads upon their trunks and branches, and a slow decay takes place; while the woodland next adjoining, left undisturbed by man, continues in fine health and as vigorous as ever in growth. Now if nature produces her work best in this way, (and that she does, every man of attentive observation can see,) we certainly ought to follow her example; then let us plow, and hoe, and dig, but ever bear in mind that our business is to aid nature in her products, and that too much plowing, digging and hoeing about plants is injurious, by preventing nature from performing her work, or by undoing what she has already made an effort to do, and is in the continuance of doing.

With much respect, LYTTLETON PHYSICK.
Aararat Farm, Md., Nov. 13, 1843.

WORM IN ONIONS.

E. G. JOHNSON, Esq. of Derby, Vt., informs us that for three years past, the onion crops in that vicinity have been almost entirely destroyed by a small white worm. After describing their ravages, he says, "I have tried many experiments with little success as preventives. Sulphur, saltpetre, salt, vinegar, strong lye, ashes, tobacco juice, whiskey, spirits of turpentine have been tried, and the same worm lived through them all. At last I tried soot from the stove pipe, and it would seem to benumb the maggot, so that he was apparently dead, but he would revive on being washed. However, I took the hint from it, and this season, as soon as the worm made his appearance, I removed the soil from the bottoms, close to the root, and applied soot and powdered charcoal, which arrested the progress of the maggot for the time, but after the application had lost its power, and the onions were full grown, they were again attacked, and I was forced to pull them to save them.

"Now has any other part of the United States been similarly affected? and if so, has any remedy been found? What is the name of the insect? Where and in what manner is he produced? and how does he get into the onion? These are inquiries, gentlemen, I should be most happy to have you answer. The maggot is a small white one, about the size of a cheese maggot, or rather larger, and sometimes hundreds will be found in one onion. At first, they were confined to a small portion of this county, but have spread rapidly, until this year I know of no onions grown except my own."

Onions have been attacked by the worm in other parts of the country, but rarely to the extent noticed by our correspondent, and crops are sometimes lost which are attributed to other causes, when doubtless the true one is the worm. Kollar, in his valuable work on Insects, says the onion worm "is the larvæ or maggot of a small fly, the *Anthomyia ceparum*, which is only half the size of the house fly. The perfect insect or fly is entirely of an ash-grey color in the female, or with black stripes on the back of the male, the wings clear like glass, with broad iridescent reflections and yellowish brown veins." There are figures of the maggot, as it appears in the onion, and of the fly and the pupa, in the work referred to. There are several generations of them in the course of the season, which accounts for the second attack on the onions of Mr. Johnson. The description and state-

ments of Dr. Harris agree perfectly with those of Kollar. The latter says the fly lays its eggs on the leaf of the onion, close to the ground. When hatched, it bores through the leaf and descends into the onion to its base, which, if numerous enough, it wholly destroys. Their destruction is found difficult. "Strewing the beds with powdered charcoal has been found the most useful, but it must not be applied to every part of the bed, as it is best to sacrifice a portion of the crop rather than lose the whole, by leaving patches free from charcoal, where the parent fly will deposit her eggs, and which, when the larvae are hatched, can be removed and burned." The white onion is much more liable to be attacked and destroyed than the other varieties. After the onion is attacked, which is known by the outward leaves turning prematurely yellow, it should be removed and destroyed at once, as a new generation is thus cut off. We have never known a bed of onions sown on what is called the hearth of a coal pit, or where blacksmith's coal has been burned, injured by the fly; and it seems probable the effect of powdered charcoal may be good. Burning all diseased onions before the larvae leaves them, is probably, however, the best preventive, and if generally adopted, would soon end their ravages.

TO PROTECT FRUIT TREES FROM MICE.

EDITORS OF THE CULTIVATOR.—I observed an article in your paper sometime since, from a writer who inquired how he was to preserve young fruit trees from the attacks of mice in the winter, as they gnaw the bark beneath the snow or crust, and thus destroy the tree. I have also heard this complaint from western farmers, particularly from Wisconsin, where many young orchards have suffered severely from the winter depredations of these vermin.

Now it is said that castor oil beans planted in a garden will prevent the attacks of mice, and also drive off moles from the vicinity where the beans are planted. If so, would not a composition made of these beans, and spread on cloth to bind around the trunk, be a preventive against the evil complained of? Would the beans in this way not be as offensive as when planted? Would the application of the oil (castor oil,) to the bark, not prevent the attacks?

An answer to these questions, or any other suggestions, would oblige one interested.

New-York, Nov. 20, 1843.

HAZELWOOD.

Domestic Economy.

HINTS TO FARMERS' WIVES.

MESSRS. EDITORS.—I noticed in your paper, a few months since, some hints to farmers' wives, with regard to the proper management of kitchen affairs; also an insinuation that they had been rather overlooked, while the press had been teeming with instruction to the farmer. The wish was expressed that some counsel might be directed to the wife, that would enable her the better to perform her varied and ceaseless routine of household duties.

The first twenty years of my life were spent in the country on the farm; consequently, all the duties connected with that pleasant and independent manner of living are old acquaintances; and while memory has been recalling the past, with all the freshness of present reality, I have often been led to contrast the different methods of performing the labor in families, and to mark the relative advantages and disadvantages of each. In some I have noticed a constant hurry and bustle, rising up early and sitting up late. These are always indications of a press of business; and a long, heavy day's work, or a week or even a month's hard labor does not relieve that pressure. Instead of getting forward with business, it rather accumulates; very many things that appear trifling at the time, must be omitted till some indefinite future, and the probability is that neglect will follow procrastination, interest will subside as other cares arise from day to day, so that what is omitted at the proper time is almost necessarily never done at all, for want of time. The good woman wonders how a neighbor of hers accomplishes such an amount of labor, and readily concludes she must have an iron constitution or she never could do it. But she does not realize that she labors much harder and takes many more steps than her neighbor, just for the want of system and tact, as it is termed. In preparing a breakfast or a dinner, there is only one article in the mind at the same time, and she will enter her pantry or cellar three times, when, if she had formed some plan and cast her eyes about her for a moment, once going would answer every purpose. A little forethought and calculation would enable her to direct every step to the accomplishment of more than a single item of her little affairs, for household duties are all in themselves considered little things; but as one says, "to be faithful in little things is something great." And in this very sentiment lies the secret of woman's dignity. Her whole life is a routine of little duties and avocations that can be performed by no other hand, and yet the happiness of families, the habits of the rising generation, and I had almost said, the fate of a nation, is depending upon just such little things, for they all have an abiding influence in the formation of character, and she who is faithful is indeed an ornament to her sex.

But let us for a few moments look at another class of housekeepers, whose labor is timely and well directed,

who make it their business to accomplish the most that can possibly be done in a given length of time. Their thoughts are sufficiently engrossed with their business to insure success; their plan has been deliberately formed and matured by careful observation, and making such changes as will be most likely to meet the wants and finish the work of each day; for with them every day has its appropriate work, and the business of one day does not ordinarily interfere with that of another. You may begin the day, if you please, with one of these housewives. Take one of her busiest in midsummer, and follow her from the first dawn of the morning; she has no confusion, no chairs to shove aside as she passes along to her kitchen, no misplaced articles to look for; every thing is ready for present use. "A place for every thing and every thing in its place," is her motto, and it is resolutely brought to bear upon every member of the family. From the opening of the fire in the morning, you will notice her economy. As soon as the first materials are set in motion for her breakfast, she enters her dairy and prepares her milk to occupy the first vacancy over the fire, so that there shall be no loss of heat or time, for her cheese can be forming while she is eating. Thus she lays the foundation for the whole day's work before breakfast; and if, as is often the case, she has a few waiting minutes, she arranges her bed room or some other necessary item, for her minutes are very precious in the cool of the day, simply because she can work so much faster and with more comfort. Breakfast is over, not in a hurried, confused kind of jangling way, but in that quiet, comfortable manner that would make even a stranger feel comparatively at home, and always indicative of contentment with one's situation. Then comes the dish washing, sweeping, preparing the cheese for the press, &c., and you will be surprised and highly gratified to see them all under way at nearly the same time, and with what rapidity all are accomplished; even the vegetables prepared for dinner by the time the clock strikes nine, and she is in readiness for the wheel or the washtub, as the case may be. The cooking of the dinner does not seem to hinder her materially; it is done at odd times or minutes which in other families are entirely lost, but it is well done, for the same well directed skill and judgment measures the quantities and regulates the requisite amount of heat to make it palatable. The same fire that finishes the cooking, heats the water for washing dishes, and the same care and despatch is observable through the dinner hour and two or three successive hours that are devoted to active labor. You will then see the good housewife with her sewing or knitting, perhaps spending an hour with some friend, enjoying a respite from care, or sympathizing with some afflicted one. All have a tendency to nerve her to the performance of further duties.

Now there is no mystery in all this: system and order have been her watchwords, and she has made it her business to strike out every thing that would not have a tendency to promote regularity, and in doing it has saved herself two-thirds of the perplexities of which so large a portion of females complain. MARTHA.

LIME FOR PRESERVING APPLES.

SOME person has made an excellent application of the discovery which was made some years since, of the value of lime in preserving articles liable to damage from moisture. One of its first applications was in preserving plants sent from distant parts of the world, by scientific explorers, to France and England. These specimens, heretofore, in spite of the greatest skill and care, were apt in long voyages to become molly and discolored, but it was found when packed in tight cases with powdered quicklime, this substance absorbed all moisture, and kept the plants perfectly dry and safe. Now it has been applied to the preservation of apples. The process we condense from the Genesee Farmer:—"The apples are to be kept in casks, and in putting them up, a layer of chaff is placed on the bottom, sprinkled with quicklime; then a layer of apples, to be followed by successive layers of chaff and lime, until the cask is filled, when it is to be closely headed up."

Chaff has, it is well known, been frequently used for packing apples, but by itself it is not a sufficient guard against loss, and has been generally discarded, as it was found to imbibe and retain moisture, causing the apples to mold and rot worse than they would if packed alone. One or two quarts of caustic lime is found to effectually counteract this tendency to absorb moisture; the little which enters the cask being attracted by the lime rather than the chaff. We have had no experience in this method of preserving apples, but the theory is a good one, and we doubt not would be successful. It is besides so very easy in application that we think many would do well to test its efficiency the present season.

TO KILL FLIES IN A CHEESE ROOM AND ELSEWHERE.—Cheese rooms are frequently kept closed and darkened, to keep out the flies, as the dairy maids say. Mr. Livesay asserts that this practice, ruinous to cheese, may be avoided by occasionally boiling a pennyworth of quassia chips in a pint of water, sweetening it, and placing it on plates, where the flies have access to it. It will destroy all that taste it.

CHEESE.—Mr. Livesay, in the Preston Chronicle, has the following remarks on cheese, which we think worthy the notice of dairymen, as we have seen some dairies in this country suffering from the evils he condemns:—"Cheese being animal matter, cannot have too much air."

I have noticed for some time that those dairies which have been kept in a large well aired room, have been quite sound; and those kept in a close ill ventilated room, were either faded, or very bad in the flavor. Though cheese should not be kept in too high a temperature, yet they will bear the summer heat very well, provided they have a constant supply of good air."

CATTLE SHOWS.

THE AMERICAN INSTITUTE.—Below we give a list of the Premiums on Stock, awarded at the late exhibition of the Institute:

HORSES.—Stallions.—Hezekiah Wetmore, Westchester co., N. Y., best stallion—silver cup. Henry Vanderwater, New-York, for 2d do.—diploma.

Brood Mares.—Robert L. Stevens, Hoboken, N. J., best brood mare, Polly Hopkins—silver cup. John H. Coster, New-York, brood mare, Guinere—silver medal. Henry Watson, East Windsor, Ct., brood mare, Betsy Wilson—diploma: a silver cup having been before awarded. John A. Pool, New-Brunswick, N. J., brood mare Indiana—diploma: a silver cup having been before awarded. C. M. Hall, Harlem, N. Y., young brood mare, Young Lady Light-Foot—diploma. Alexander Benedict, Staten Island, N. Y., grey mare—diploma.

Colts.—Robert L. Stevens, Hoboken, N. J., best colt—silver cup.

JACKS.—John A. Pool, New-Brunswick, N. J., best jack—diploma: a silver cup awarded last year.

MULES.—Robert L. Stevens, Hoboken, N. J., best pair of mules—silver cup.

IMPROVED BREEDS OF CATTLE.—Bulls, 2 years old and upwards.—George Vail, Troy, N. Y., best Durham bull, Meteor—silver cup. Henry Hull, best Devon bull—silver cup.

Bulls, 1 year old.—George M. Woolsey, Hurlgate Neck, N. Y., best Durham bull, Jupiter—silver cup.

Bull Calves.—Wm. Gibbons, Madison, N. J., best Durham bull calf—silver medal.

Cows.—Thomas Adria Emmet, Mt. Vernon, N. Y., best Durham cow, Celeste—silver cup.

Heifers.—Wm. Pirnie, Hartsontown, N. Y., best Durham heifer, Victoria—silver cup.

Heifer Calves.—Wm. Gibbons, Madison, N. J., best Durham heifer calf—silver medal.

NATIVE STOCK.—Cows.—John R. Peters, New-York, best native cow—silver cup.

Heifers.—Joseph Clowes, Hartsontown, N. J., best native heifer—silver medal.

Bull Calves.—Bethuel Brackett, New-Haven, Ct., best native bull calf—silver medal.

Working Oxen.—Benajah Ives, Cheshire, Ct., best pair of working oxen—silver cup. Lambert Wyckoff, Bushwick, L. I., 2d best pair of working oxen—silver medal.

SPECIAL AWARDS.—Bulls.—Wm. Gibbons, Madison, N. J., Durham bull, Zero—silver cup. John A. Pool, New-Brunswick, N. J., Durham bull, Carter—silver cup.

Cows.—Henry Whitney, New-Haven, Ct., Durham heifer, Cornelia—silver cup. Henry Smith, Astoria, L. I., a cow of great milking qualities—silver cup.

SHEEP.—Long Wools.—George Monteith, Albany, N. Y., best buck, Costwold breed—silver cup. Charles Blackbourne, Bedford, L. I., best ewe, Lincolnshire breed—silver cup. Charles Blackbourne, Bedford, L. I., best lamb—silver medal.

Middle Wools.—Obadiah Elliot, Middleham, N. J., best buck, Southdown breed—silver cup. Francis M. Rotch, Butternutts, N. Y., best ewe, Southdown breed—silver cup. Francis M. Rotch, Butternutts, N. Y., best lamb, Southdown breed—silver medal.

Fat Wethers.—J. Macdonald McIntyre, Albany, N. Y., best fat wether, Southdown and Cotswold breeds—silver cup.

SPECIAL AWARDS.—Wm. Pirnie, Hartsontown, N. Y., for a ewe and lamb, Leicester breed—diploma.

James Brodie, Westchester co., N. Y., for a ewe and two lambs, Leicester breed—diploma.

J. Macdonald McIntyre, Albany, N. Y., for a Southdown buck—diploma.

John Beatty, Morris co., N. J., for six ewes of the Bakewell breed—diploma.

Charles Blackbourne, Bedford, L. I., for a Lincolnshire buck—diploma.

George Monteith, Albany, N. Y., for Leicester bucks—diploma.

SWINE.—William P. Moss, New-York, for the best Berkshire boar—silver cup.

Alexander Benedict, Staten Island, for the 2d best boar—diploma.

John Giles, Providence, R. I., for the best Berkshire sow—silver cup.

John Rutter, Yorkville, N. Y., for the 2d best sow—diploma.

PREMIUM CROPS.

CHEMUNG CO. AG. SOCIETY.—The following premiums on grain crops were awarded at the late Exhibition of this Society, held at Elmira, Oct. 17:

Corn.—J. L. Smith, Southport, best acre corn, one-fourth acre husked, which yielded 52½ bushels of ears.

This is certified to be an average of a lot containing between 3 and 4 acres, making 269 bushels of ears to an acre, long white 8 rowed variety; soil, gravelly loam; had laid in meadow and pasture 10 or 12 years, and had been foddered on some; had last spring a dressing of 25

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